

## International journals – July 2024 to June 2025

1. **P. Satpathy, S.Maity**, M. Mathur. “Enhancing Reliability in DMF Biochips Operations Through Optimised Mixer Assignments And Mixing Modulation”, *Journal of Environmental Protection and Ecology*, vol. 25, Issue 5, and ISSN: 1311-5065, pp. 1649-1663, July 2024. **(Scopus Indexed) (IF-1.3)**
2. **S.Maity, P. Satpathy**, M. Mathur, “Design and Implementation of Low Power 6T SRAM Using FINFET”, *Journal of Environmental Protection and Ecology*, vol. 25, Issue 5, and ISSN: 1311-5065, pp. 1664-1673, July 2024. **(Scopus Indexed) (IF-1.3)**
3. **T. Sinha** and J. Bhaumik, “Performance Analysis of NR Polar Codes at Short Information Blocks for Control Channels,” *Wireless Personal Communications*, vol. 138, no. 2, pp. 879–890, doi: <https://doi.org/10.1007/s11277-024-11530-4>, Aug. 2024. **(SCIE, SCOPUS Indexed) (IF: 1.9)**
4. **Sudipta Bardhan**, Manodipan Sahoo, Hafizur Rahaman and **Jagannath Samanta**, “A Quasi-Ballistic Model for Short Channel Monolayer Graphene Field Effect Transistor Including Scattering Effects”, *IETE Journal of Research*, **(SCIE, IF: 1.5)** ISSN: 0377-2063. Vol. 70, No. 9, April, 2024. **DOI:** 10.1080/03772063.2024.2352154. September 2024.
5. **Dibyendu Chowdhury**, Suddhendu DasMahapatra, Bishnu Prasad De, Madhusudan Maiti, Rajib Kar, Durbadal Mandal, **Jagannath Samanta**, "Optimized Gate Metal Variant Structure for Graded-Channel (GC) Gate-Stack (GS) Double-Gate (DG) MOSFET to Enhance Switching Speed, Analog and RF Performance". *Journal of Electronic Materials*, DOI: <https://doi.org/10.1007/s11664-024-11548-1>, November 2024. **(SCIE Indexed) (IF – 2.2)**
6. **Moumita Jana** and Sanjay Kumar “Performance analysis of IRS-assist dual-hop wireless communication system”. *Physical communication*, Elsevier, doi.org/10.1016/j.phycom.2024.102550, issue 68, number 102550, 2024. **(SCI Indexed) (IF-2.0)**
7. M. A. Huraiya, S. G. Ramaraj, Sk. Md. Shahadat Hossain, **K. Chakrabarti**, H. Tabata and S. M. A. Razzak, *Nanoscale Adv.*, Advance Article , DOI: 10.1039/D4NA00812J, 2025.
8. Amruta V. Surana, Suvarna Eknath Pawar, Shrinwantu Raha, Nilesh Mali, **Tilak Mukherjee**, “Ensemble Fine Tuned Multi Layer Perceptron for Predictive Analysis of Weather Patterns and Rainfall Forecasting from Satellite Data”, *ICTACT Journal on Soft Computing (IJSC)*. Vol.15 (2), pp. 3491-3496, ISSN: 2229-6956. DOI: 10.21917/ijsc.2024.0487, Oct 2024. **(UGC CARE)**
9. **Amit Bhattacharyya**, Srinivasa Rao Karumuri, and Manash Chanda, “Breast-Cancer Cell Lines Recognition: Modeling and Simulation With Repulsive Steric Hindrance Approach”, *IEEE Trans. Consumer Electronics*, doi: 10.1109/TCE.2024.3521993, Dec. 2024. (Early Access) **(SCI, I.F. - 4.3)**
10. Anindita Chatterjee, G. Kiran Kumar, Gourisankar Roymahapatra, **Himadri Sekhar Das**, G. Jaishree, T. Siva Rao, Zinc chalcogenide nanostructures: synthesis methodologies and applications—a review, *Front. Nanotechnol.*, 16 August 2024, Sec. Nanomaterials, Volume 6 - 2024 | <https://doi.org/10.3389/fnano.2024.1433591>.
11. **Himadri Sekhar Das**, Sneha Maiti, Shampa Bhattacharyya, Abhishek Bag, Gourisankar Roymahapatra, Sudipta Banerjee, Heranmoy Maity, Aricson Pereira, and Bikash Bepari, Effect of Absorber Layer Thickness on the Performance of the Perovskite Solar Cell in Solar Cell Capacitance Simulator-1D (SCAPS-1D), , *ES General*, 2024, 6, 1292, DOI:10.30919/esg1292.

12. Arya Maity, Subir Kumar Maity and **Himadri Sekhar Das**, A data-driven compact drain current model for InGaAs FinFET using TCAD assisted machine learning approach, Eng. Res. Express 6 045353DOI 10.1088/2631-8695/ad980c.
13. Ramzi Jalgham, Sihem Ouchenane, Omar Dagdag, Houria Ghodbane, **Himadri Sekhar Das**, Anjana Ghosh, Gourisankar Roymahapatra and Muneer Ba-Abbad, Precise Prediction on the Corrosion Prevention Ability of 1,2,4- Triazole Derivatives: An Artificial Neural Network Approach, , ES Energy & Environment, DOI:10.30919/esee1344.
14. Milan Hait Priyanka Gupta, Gaurav Tamrakar, Supriya Biswas, Rakesh Singh Dhundhe, Vipin Kumar Soni, **Himadri Sekhar Das**, Pradeep Sahu, Amit Kumar Chaturvedi, Nand Kumar Kashyap, Takashiro Akitsu, Quantum Dots as a Fluorescent Sensor for Detecting Heavy Metal Ions in Aqueous Environment: An Overview, , ES Chemistry and Sustainability, Engineered Science.
15. B. Bepari, B. Bairagi, **Himadri Sekhar Das** and Gourisankar Roymahapatra, De-novo Approach in Rank Agglomeration in Multi Criteria Decision Making for Materials Selection, , ES General, DOI: 10.30919/esg1353.
16. **Himadri Sekhar Das**, Nabanita Aich, Juthika Maity, Poulami Bera, Takashiro Akitsu, Shampa Bhattacharyya, Subrata Mondal, Gourisankar Roymahapatra, and Bikash Bepari, Quindecennial Retrospection on the Trends and Advances in Perovskite Solar Cells, , ES General, 2024, 6, 1242, DOI: 10.30919/esg1242.
17. H. Tsukada, N. Suzuki, **B. Bag**, R. Takahashi and M. Kim, &quot;Millimeter-Wave Urban Cellular Channel Characterization and Recipe for High-Precision Site-Specific Channel Simulation,&quot; in IEEE Transactions on Vehicular Technology (Early Access), doi: 10.1109/TVT.2024.3492719. November 2024.
18. Rajrup Saha, **Avishek Das**, Durbadal Mandal, Rajib Kar, &quot;Marine Predators Algorithm-based Linear and Elliptical Antenna Array Design for 5G Communication&quot;, Journal of Electromagnetic Waves and Application, Vol.38, Issue. 17, pp. 1954-1978, 2024. (Taylor and Francis)

## International Conference – July 2024 to June 2025

1. **Moumita Jana** and Sanjay Kumar, &quot;Investigate the Impact of Path-loss on Channel Capacity in IRS-Assist Dual-hop Wireless Communication System&quot;, IEEE 3 rd International conference communication, control, and intelligence system (CCIS-2024), GLA university, Mathura, India, 6-7 Dec, 2024.

2. Gourisankar Roymahapatra Arijit Kumar Barik, Asim Kumar Jana, **Himadri Sekhar Das**, Study the improved efficiency of the Lead-Free CsSnI<sub>3</sub> Perovskite Solar Cells with variation of absorber layer in SCAPS-1D, , Santanu Mishra, IEEE, EDKCON.
3. Sudipta Banerjee, **Himadri Sekhar Das**, Heranmoy Maity, Securing the Future of Communication with Quantum Cryptography, , IEEE, EDKCON.
4. S. Banerjee, K. Sarkar, **H. S. Das**, H. Maity and R. V. Bidwe, "A Brief Review of TOPCon Solar Cell and its Future Perspectives," *2024 IEEE International Conference on Communication, Computing and Signal Processing (IICCCS)*, ASANSOL, India, 2024, pp. 1-4, doi: 10.1109/IICCCS61609.2024.10763724.
5. Sudipta Banerjee, Mukul K Das, Koushik Sarkar, **Himadri Sekhar Das**, Heranmoy Maity, Pradipta Maiti, S Prasanna Kumar, Design and Performance Analysis of n-PERC Solar Cell, -IEEE, nternational Conference on MNDCS-2025, 29-31 Jan 2025.
6. **Jayanta Kumar Bag, Chanchal Kumar De**, Abhijit Chandra, "Performance Analysis of Adaptive Underlay/Overlay Full-Duplex Cooperative Communication in Cognitive Radio Network", 2024 IEEE 5th India Council International Subsections Conference (INDISCON), November, 2024 10.1109/INDISCON62179.2024.10744388.
7. **Dipak Samanta, Jayanta Kumar Bag, Chanchal Kumar De**, Abhijit Chandra, "Performance Analysis of Full-Duplex Relay aided Multi-Primary CR Network under Non-linear Energy-Harvesting Environment", 14 th - 15 th December 2024 IEEE Calcutta Conference (CALCON 2024) (ACCEPTED).

## Book Chapters – July 2024 to June 2025

1. **D. Chowdhury**, M. Maiti, S. DasMahapatra, B. P. De, R. Kar, D. Mandal, "Optimal Design of Nano Scale Voltage Amplifier Using Evolutionary Techniques for DG-MOSFET". In: Tripathi, A., Soni, A., Tiwari, M., Swarnkar, A., Sahariya, J. (eds), *Intelligent Computing Techniques for Smart Energy Systems, ICTSES 2023, Lecture Notes in Electrical Engineering*, vol 1277, pp. 201-212, Springer, Singapore. [https://doi.org/10.1007/978-981-97-8429-5\\_16](https://doi.org/10.1007/978-981-97-8429-5_16), Dec 2024.
2. **Himadri Sekhar Das**, Arindam Basak, Subir Maity, *Materials Science and Technology*, , IGI Global Scientific Publisher, DOI: 10.4018/979-8-3693-3398-3.ch008.
3. **Himadri Sekhar Das**, Gourisankar Roymahapatra, Santanu Mishra, *Micro/Nano Plastic Pollution Represents a Significant and Growing Threat to Human Populations Worldwide*, Title: Global Impacts of Micro- and Nano-Plastic Pollution, 2025, Pages: 24, DOI: 10.4018/979-8-3693-3447-8.ch002.

4. **Himadri Sekhar Das**, Santanu Mishra, Gourisankar Roymahapatra, Advanced Nano-Structured Materials for Energy Storage Devices, Title: Design, Fabrication, and Significance of Advanced Nanostructured Materials,2025,Pages: 34,DOI: 10.4018/979-8-3693-5320-2.ch001.
5. **Himadri Sekhar Das**, Subir Maity, Integrating Internet of Things (IoT) With Edible Electronics, Title: Edible Electronics for Smart Technology Solutions,2025,Pages: 28,DOI: 10.4018/979-8-3693-5573-2.ch010.
6. **Himadri Sekhar Das**, Hiranmoy Maity, Sudipta Banerjee, **Banibrata Bag**, Fundamentals of AI, Quantum Computing, and Semiconductor Technology, Title: Integration of AI, Quantum Computing, and Semiconductor Technology,2025,Pages: 28,DOI: 10.4018/979-8-3693-7076-6.ch001.
7. **Himadri Sekhar Das**, Renewable Energy Integration and Energy Efficiency, Source Title: Sustainable Smart Cities and the Future of Urban Development, 2025,Pages: 30,DOI: 10.4018/979-8-3693-6740-7.ch014.
8. **Himadri Sekhar Das**, Advanced Technology for Water Treatment and Purifications, Title: Emerging Trends and Technologies in Water Management and Conservation, 2025, Pages: 34,DOI: 10.4018/979-8-3693-6920-3.ch001.
9. **Himadri Sekhar Das**, Sandipan Samanta, Rajrupa Metia, Debasish Samanta, **Banibrata Bag**, Cyber Security Techniques for 5G Networks, Title: Advanced Cyber Security Techniques for Data, Blockchain, IoT, and Network Protection,2025,Pages: 24,DOI: 10.4018/979-8-3693-9225-6.ch005.
10. **Himadri Sekhar Das**, Life Cycle Assessment of Emerging Battery Technologies for Electric Vehicles, Title: Optimized Energy Management Strategies for Electric Vehicles,2025,Pages: 32,DOI: 10.4018/979-8-3693-6844-2.ch004.
11. **Himadri Sekhar Das**, Santanu Mishra, Gourisankar Roymahapatra, Graphene Oxide in Water Treatment From Adsorption to Photocatalysis, , Carbon-Based Materials and Environmental Remediation: Graphene, Biochar, and More, 2024,Pages: 32,DOI: 10.4018/979-8-3693-8257-8.ch005.

## **Books – July 2024 to June 2025**

## **Patent – July 2024 to June 2025**

1. Indian Patent (Design) with Grant: Solar Panel with integrated heat pipes enhanced efficiency  
Applicant and Inventor: **Tirthadip Sinha**  
Design Number: 437612-001  
Application Date: 18/11/2024
  
1. Applicant Name: **Himadri Sekhar Das**,  
Application No.: Design No-431584-001.  
Date of filing of Application: DD/MM/YYYY  
Title of the invention: IOT Enabled RFID Tagged Key Device for Cheak In Hotel  
Granted on: 25/09/2024
  
2. Applicant Name: **Himadri Sekhar Das**,  
Application No.: 202431063237  
Date of filing of Application: 20/12/2024  
Title of the invention: Li@Organic Boron Doped Superhalogen Electrolytes
  
3. Applicant Name: **Dr. Kushal Roy**  
Patent/ Design No. 431584-001  
Date of filing of Application: 25/09/24  
Title of the invention: IOTEBABLED RFID TAGGED KEY DEVICE FOR CHECK-IN  
IN HOTELS.  
Granted on: 02/12/2024