

Name of the Faculty: **Dr. Tanmay Sinha Roy**

Designation: Assistant Professor

Department: ECE

No. of Publication: 36

Journal Publication:

Type of Journal	DOI No.	Name of the Article	Name of the Author	ISSN No.	Year of Publication
SCIE	https://doi.org/10.1007/s00500-024-09909-3 .	Improvement in the performance of deep learning based on CNN to classify the heart sound by evaluating hyper-parameters.	Tanmay Sinha Roy, Joyanta Kumar Roy, & Nirupama Mandal	1433-7479	2024
SCOPUS	Accepted	EEG Based Mental State Classification Using Residual Net Approach	Soumen Ghosh, Tanmay Sinha Roy, Prem Prakash, Raja Gupta	1755-0661	2024

Book Chapter Publication:

DOI No.	Name of the Article	Name of the Author	ISBN No.	Year of Publication
https://doi.org/10.62906/bs.book.211	Application of Digital Signal Processing Technology in Communication	Dr. Tanmay Sinha Roy	978-93-6233-761-0	2024
https://doi.org/10.62906/bs.book.211	Industrial Security System Based on Microcontroller	Dr. Tanmay Sinha Roy	978-93-6233-761-0	2024
https://doi.org/10.62906/bs.book.211	Internet of Things (IOT): Research Challenges and Future Applications	Dr. Tanmay Sinha Roy	978-93-6233-761-0	2024
https://doi.org/10.62906/bs.book.211	Machine Learning for Wireless Network Throughput Prediction	Dr. Tanmay Sinha Roy	978-93-6233-761-0	2024
https://doi.org/10.62906/bs.book.210	Lung Condition Prediction using Machine Learning after COVID-19: A Review	Dr. Tanmay Sinha Roy	978-93-6233-525-8	2024
https://doi.org/10.62906/bs.book.210	Non-Invasive Glucose Monitoring: A Comprehensive Review	Dr. Tanmay Sinha Roy	978-93-6233-525-8	2024

https://doi.org/10.62906/bs.book.210	ECIS-Based Cell Growth Monitoring: A Comprehensive Review	Dr. Tanmay Sinha Roy	978-93-6233-525-8	2024
https://doi.org/10.62906/bs.book.210	Advancements and Applications of IoT-Based Smart Traffic Control Systems: A Comprehensive Review	Dr. Tanmay Sinha Roy	978-93-6233-525-8	2024
https://doi.org/10.62906/bs.book.210	Prediction of Kidney Disease using Machine Learning Algorithms: A Systematic Review	Dr. Tanmay Sinha Roy	978-93-6233-525-8	2024

Other Publication Details (if any)

International Conferences: 06

1. **Tanmay Sinha Roy**, Soumen Ghosh, Biswajit Jana, “Comparison of Different Machine Learning Algorithms for EEG Signal Analysis”, 2nd International Conference on Data Analytics and Insights (ICDAI-2024), Techno International Newtown, Kolkata.
2. Soumen Ghosh, Sneha Prabhaskar, Rituja Debnath, Sabyasachi Samanta, **Tanmay Sinha Roy**, (2024). Recycled Car Price Extrapolation by LASSO and Linear Regression. In: Dutta, S., Bhattacharya, A., Shahnaz, C., Chakrabarti, S. (eds) Cyber Intelligence and Information Retrieval. CIIR 2023. Lecture Notes in Networks and Systems, vol 1025. Springer, Singapore. https://doi.org/10.1007/978-981-97-3594-5_35.
3. Bansari Deb Majumder, Joy Halder, Dipu Mistry, **Tanmay Sinha Roy** and Barnali Kundu, “Development of Low Cost Inventory Management System using UAV”, DABCon, Kolkata, 2024. (Accepted)
4. **Tanmay Sinha Roy**, Joyanta Kumar Roy, Senior Member, IEEE, Nirupama Mandal, Senior Member, IEEE, Bansari Deb Majumder, and Saurabh Basak, “EEG Based Mental State Classification Using AdaBoost Model”, ETMN, Delhi, 2024. (Accepted)
5. Bansari Deb Majumder, Moumita Ghosh, Subha Koley, Joy Halder, Joyanta Kumar Roy, **Tanmay Sinha Roy**, “Modeling of Laboratory Scale Electrically Heater Boiler using Artificial Neural Network”, ETMN, Delhi, 2024. (Accepted)
6. Saurabh Basak, **Tanmay Sinha Roy**, Bansari Deb Majumder, “Prediction of External Quantum Efficiency for Organic Tin Based Perovskites”, AIEST, Kolkata, 2024. (Accepted)

National Conferences: 10

1. **Tanmay Sinha Roy**, “Modelling of SiC Power MOSFET”, International Conference on Integrative Science and Engineering, Swami Vivekananda University, Kolkata, 2024. (Accepted)
2. **Tanmay Sinha Roy**, “Application of Digital Signal Processing Technology in Communication”, International Conference on Integrative Science and Engineering, 2024. (Accepted)
3. **Tanmay Sinha Roy**, “Industrial Security System Based on Microcontroller”, International Conference on Integrative Science and Engineering, 2024. (Accepted)
4. **Tanmay Sinha Roy**, “Internet of Things (IOT): Research Challenges and Future Applications”, International Conference on Integrative Science and Engineering, 2024. (Accepted)
5. **Tanmay Sinha Roy**, “Machine Learning for Wireless Network Throughput Prediction”, International Conference on Integrative Science and Engineering, 2024. (Accepted)

6. **Tanmay Sinha Roy**, Sk Babul Akhtar, Shreya Adhikary, Tomal Suvro Sannyashi, Debasis Mondal, "Applications of Sliding Mode Control in Engineering Systems", ICSRD, 2024. (Accepted)
7. **Tanmay Sinha Roy**, Sk Babul Akhtar, Shreya Adhikary, Tomal Suvro Sannyashi, Debasis Mondal, "Cadence Virtuoso based circuit simulation of universal logic gates: A Review", ICSRD, 2024. (Accepted)
8. **Tanmay Sinha Roy**, Sk Babul Akhtar, Shreya Adhikary, Tomal Suvro Sannyashi, Debasis Mondal, "Cmos Scaling: Present, Past and Future", ICSRD, 2024. (Accepted)
9. **Tanmay Sinha Roy**, Sk Babul Akhtar, Shreya Adhikary, Tomal Suvro Sannyashi, Debasis Mondal, "Image Manipulation Detection using Convolutional Neural Network", ICSRD, 2024. (Accepted)
10. **Tanmay Sinha Roy**, Sk Babul Akhtar, Shreya Adhikary, Tomal Suvro Sannyashi, Debasis Mondal, "IoT-Based Sustainable Development", ICSRD, 2024. (Accepted)

Patents Filed: 08 (Published: 02)

Copyrights Filed: 01

Copyrights

1. Copyright on "**Pilgrimage Tourism and Environmental Ethics: A Sustainable Framework**" dated 11/12/24 filed with **Diary Number: 38995/2024-CO/L**

Patents

1. Patent on "**IOT Enabled Linen Room Surveillance Device for Hotel**" dated 23/10/24 filed with **Application Number: 435392-001**.
2. Patent on "**IOT Enabled Linen Room Cleanliness Detection Device**" dated 30/10/24 filed with **Application Number: 436217-001**.
3. Patent on "**Smoke Detection System for hotel using IoT**" dated 15/11/2024 filed with **Application Number: 437492-001**.
4. Patent on "**Digital Chopping Board for Kitchen**" dated 22/11/2024 filed with **Application Number: 438173-001**.
5. Patent on "**LIDAR Enabled Hotel Carpet Stain Detection Apparatus**" dated 04/12/2024 filed with **Application Number: 439461-001**.
6. Patent on "**Smart Mattress using Blockchain Technology**" dated 11/12/2024 filed with **Application Number: 440243-001**.
7. Patent on "**Digital clay tandoor oven**" dated 19/12/2024 filed with **Application Number: 441197-001**.
8. Patent on "**IOT-Enabled Safety Device for Swimming Pool**" dated 06/01/2025 filed with **Application Number: 443217-001**.

Projects Submitted: 02

1. **DBT-Cardiovascular Health and Disease Grant:** Comprehensive Strategies for Early Identification and Prevention of Cardio-Metabolic Health Risks. (PI)
2. **European Research Council Grant:** AI-Based Analysis of Brainwaves during Yoga Practices for Enhanced Cognitive and Emotional Well-being. (PI)