

ARITRA BISWAS

MCA Graduate (Fresher) | AI & Cryptography Researcher
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Summary

Research-driven MCA graduate specializing in Cryptography, Cybersecurity, and Information Security. GATE-qualified with research publications in SCIE, Springer ESCI, Scopus-indexed journals, and IEEE Xplore conference proceedings. Aspiring to build a career in academia as an Assistant Professor through effective teaching, research, laboratory support, and student mentorship while contributing to academic excellence, innovation, and lifelong learning.



Education

Qualification	Board / University	Year	Percentage
Higher Secondary (Class XII)	West Bengal Council of Higher Secondary Education	2021	71.60%
Bachelor of Computer Applications (BCA)	Brainware University	2021–2024	85.73%
Master of Computer Applications (MCA)	Brainware University	2024–2026	75.00%

National Entrance Examinations

Test Name	Score	Rank	Percentile	Registration No.	Qualified For
GATE 2026 (Computer Science and Information Technology)	346	29,612	85.97	CS26S34036429	M.Tech / Ph.D Admission

Research Metrics

Research Interest Score (RIS)	3.6
Total Citations	11
h-index	2
i10-index	0

Subjects of Interest

Cyber Security	60%
Cryptography	50%
Software Engineering	65%
C Programming	65%

Academic Publications

2024–2026

Published Journal Articles

Sl. No.	Title	Category	Year	Journal	Indexing
1	Early Surface Crack Detection and Localization in Structures: An Artificial Intelligence Approach DOI: 10.1007/s42452-025-07562-5	Machine Learning	2025	Discover Applied Sciences	ESCI
2	Deterministic Mamdani Fuzzy-Controlled KAA and Hybrid Logistic-Sine Chaotic Image Encryption with AES S-Box Substitution Status: In Press	Cryptography	2026	Discover Internet of Things	Scopus Q1

Manuscripts Under Final Review

Sl. No.	Title	Category	Year	Journal	Status
1	ECKA-GA: An Elliptic Curve and KAA Chaotic Map-Driven Genetic Algorithm Framework for Secure Image Encryption In Press	Image Security	2026	Scientific Reports	Accepted
2	HELICS: Hybrid Encrypted Lightweight Image Confusion System Using CNN, Chaotic Maps, and Lightweight Cryptography Final Review Completed	Image Security	2026	Applied Intelligence	Under Final Review

Conference Articles

Sl. No.	Title	Category	Year	Journal / Publisher	Indexing
1	Chaos-Driven Image Encryption Using Zigzag Patterns and Chebyshev Dynamics DOI: 10.1109/ICALET65052.2025.11210921	Cryptography	2025	IEEE Xplore	Scopus
2	An Efficient Image Cipher Based on Lorenz System and Cellular Automata Rule 105 DOI: 10.1109/ICALET65052.2025.11210917	Cryptography	2025	IEEE Xplore	Scopus
3	ICAR30: Image Encryption Using Ikeda Map and Cellular Automata DOI: 10.1007/978-981-96-9239-2_29	Cryptography	2025	Springer	Scopus
4	LWCNN-BiLSTM: Lightweight CNN-BiLSTM for Vibration Forecasting in Structural Health Monitoring Presented at STESI 2026, Paper ID: 343 Accepted Papers Link Presented & In Press	Machine Learning	2026	IEEE Xplore	Scopus

Technical Skills

- **Programming:** C, Python
- **Libraries:** PyTorch, TensorFlow
- **Tools:** Latex (Overleaf)
- **Domains:** Image Encryption, Image Processing, Cryptography

Certifications

🌟 AICTE ATAL Academy FDP	Faculty Development Program (FDP) Emerging Trends in IoT: Developments and Challenges Elite Institute of Engineering and Management (Polytechnic) <i>Jul 28, 2025 – Aug 2, 2025</i> Certificate No.: ATAL/2025/1748877754
🌟 SysAlgo Certification	Front-End Development using React.js Student ID: EJ23031507
🌟 Brainware University	Front-End and UI Development Registration No.: 21013001432

Achievements

3rd Place Award

International Conference on Artificial Intelligence 2024

Presented **AgriPredict**, a cost-effective crop management solution for farmers.

Best Paper Award

AIRISE 2025 – Manipal University Jaipur [\[View\]](#)

Presented “**Early Surface Crack Detection and Localization in Structures: An Artificial Intelligence Approach**”; selected for publication in Springer ESCI-indexed journal.

Participation

Participated in various technical and cultural events organized by the university.

Personal Details

Nationality

Indian

Category

SC

Languages

Bengali, English, Hindi

Academic Profiles

Google Scholar

[View Profile](#)

ORCID

[View Profile](#)

LinkedIn

[View Profile](#)

ResearchGate

[View Profile](#)

References

Reference 1

Dr. Ratnabali Pal

Designation

Postdoctoral Researcher

Affiliation

Department of Technology and Safety, UiT – The Arctic University of Norway, Tromsø, Norway

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