

Faculty Profile

Name: Dr. Subhrajyoti Deb
Designation: Assistant Professor
Department: Computer Science and Engineering
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Educational Qualification(s):

Qualification(s)	University
Post-doctorate	ISI Kolkata
Ph.D.	NEHU Shillong
MTech CSE	NIT Agartala

Experience in years:

Academic: 2 Years

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1	Anurag University, Hyderabad	Assistant Professor	2020	2021
2	ICFAI University Tripura	Assistant Professor	2021	Till date

Academic distinctions/honors and awards:

- 1) Visvesvaraya PhD awardee, Miety, Govt of India
- 2) GATE qualified
- 3) Visited Japan under IRIS, Japan Govt.
- 4) Young Researcher, from IAE 2021

Expert Talk

1. Expert lectures on "Visual Cryptography and its Analysis". AICTE STTP phase 2 on "Machine Learning and Computer Vision", Department of Computer Science Engineering, TIT Agartala, Tripura, India, Date: 25-03-2022.
2. Expert lectures on "Multimedia Data Encryption", AICTE ATAL workshop on "Cyber Security and Cryptography", Department of Computer Science Engineering, National Institute of Technology Agartala, Tripura, India, Date: 27-07 2021.

3. Expert lectures on ``Research Paper Writing and Presentation through Overleaf Latex". Department of Computer Science and Engineering, National Institute of Technical Teachers Training & Research, Sector-26, Chandigarh, Date: 18-02-2021.

Publication details

Journal

- 1) **Subhrajyoti Deb**, and Bubu Bhuyan. "Performance evaluation of grain family and espresso ciphers for applications on resource constrained devices." ICT Express 4, no. 1 (2018): 19-23. [**SCI E, IF- 4.317**]
- 2) **Subhrajyoti Deb**, and Bubu Bhuyan. "Chaos-based medical image encryption scheme using special nonlinear filtering function based LFSR." Multimedia Tools and Applications 80, no. 13 (2021):19803–19826. [**SCI E, IF- 2.757**]
- 3) **Subhrajyoti Deb**, and Bubu Bhuyan. "Performance analysis of current lightweight stream ciphers for constrained environments." Sadhana 45, no. 256 (2020). [**SCI E, IF-1.188**]
- 4) **Subhrajyoti Deb**, Bhaskar Biswas, and Bubu Bhuyan. "Secure image encryption scheme using high efficiency word-oriented feedback shift register over finite field." Multimedia Tools and Applications 78, no. 24 (2019):34901-34925. [**SCI E, IF- 2.757**]
- 5) Prasenjit Das, **Subhrajyoti Deb**, Nirmalya Kar, and Baby Bhattacharya. "An improved DNA based dual coversteganography." Procedia Computer Science 46 (2015): 604-611. [**Scopus**]
- 6) Abhilash Kumar Das, Nirmalya Kar, **Subhrajyoti Deb**, and M. P. Singh. "bFLEXy: A Lightweight Block Cipher Utilizing Key Cross Approach via Probability Density Function." Arabian Journal for Science and Engineering (2022): 1-16. [**SCI E, IF- 2.334**]
- 7) **Subhrajyoti Deb**, Bubu Bhuyan, Nirmalya Kar, and K Sudheer Reddy. "Color image encryption using an improved version of stream cipher and chaos." International Journal of Ad Hoc and Ubiquitous Computing (2022): 1-16. [**SCI E, IF- 0.654**]
- 8) **Subhrajyoti Deb**, Santu Pal, and Bubu Bhuyan. "NMRMG: Nonlinear Multiple-Recursive Matrix Generator Design Approaches and Its Randomness Analysis." Wireless Personal Communications (2022): 1-21. [**SCI E, IF- 1.671**]
- 9) **Subhrajyoti Deb**, and Pratap Kumar Behera. "Design of key-dependent bijective S-Boxes for color image cryptosystem." Optik (2022): 168548. [**SCI, IF- 2.443**]
- 10) Kumar Sekhar Roy, **Subhrajyoti Deb**, Hemanta Kumar Kalita. "A Novel Hybrid Authentication Protocol utilizing Lattice-based Cryptography for IoT devices in Fog Network." Digital Communications and Networks (2022) [**SCI E, IF- 6.348**]

Book Chapter

- 1) **Subhrajyoti Deb**, RohitUpadhya, and BubuBhuyan. "Applicability of Lightweight Stream Cipher in Crowd Computing: A Detailed Survey and Analysis." In Crowd Assisted Networking and Computing, pp. 219-246. CRC Press, 2018.
- 2) AbhishekMajumder, Subhrajyoti Deb, and Sudipta Roy. "Taxonomy of Intra-Domain Mobility Management Schemes in Wireless Mesh Network for Implementing Mobile IPTV." IPTV Delivery Networks: Next Generation Architectures for Live and Video-on-Demand Services pp. 247. Wiley, 2018.

Conference

- 1) **Subhrajyoti Deb**, Bhaskar Biswas, and BubuBhuyan. "Advanced Image Encryption Scheme Using Snow Stream Cipher." In Proceedings of ICECIT, pp. 785-794. Springer, 2020. [LNEE]
- 2) **Subhrajyoti Deb**, BubuBhuyan, and NavinCh Gupta. "Design and analysis of LFSR-based stream cipher." In Proceedings of I3CS, pp. 631-639. Springer, 2018. [LNNS]
- 3) AbhishekMajumder, **Subhrajyoti Deb**, and Sudipta Roy. "Classification and performance analysis of intra-domain mobility management schemes for wireless mesh network." In Proceedings of ICTCS , pp. 1-6. 2016. [ACM]
- 4) **Subhrajyoti Deb**, Bhaskar Biswas, and NirmalyaKar. "Study of NLFSR and reasonable security improvement onTrivium cipher." In Information Systems Design and Intelligent Applications, pp. 731-739. Springer, 2015. [AISC]

Active reviewer

1. Information Sciences - Journal – Elsevier
2. IEEE Access
3. Concurrency and Computation: Practice and Experience