Dr. Anu Singha

👤 Mar 1, 1989

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Languages ───────

* English ● ● ● ● ●
* Bishnupriya Manipuri ● ● ● ● ●
* Hindi ● ● ● ● ○
* Bengali ● ● ● ● ○

Technical Skills ──

💬 Languages
 ✈ C, C++, Core Java, MATLAB, R Programming, Python

💬 Technology
 ✈ JDBC, Keras, PyTorch

💬 Web Technology
 ✈ HTML5, CSS3

💬 RDBMS
 ✈ ORACLE 10G, MS SQL Server 2008

💬 Expertise
 ✈ Ubuntu, Windows xp, vista, 7, 8, 10

💬 Typography
 ✈ LaTeX, Beamer, Overleaf, Microsoft Office

CURRICULUM VITAE

✹ Fellowship

Currently	**Senior Research Fellowship**
	SRF under Defence Research and Development Organisation (DRDO) Sponsor Project entitled *'Development of object detection techniques from degraded complex video sequences due to dynamic variation of scenes by different atmospheric conditions for security and surveillance'*, Govt. of India.
2015 – 2018	**UGC Non-NET Fellowship**
	UGC Non-NET Fellowship by University Grants Commission, Govt. of India, during Doctor of Philosophy.
2010 – 2013	**SAU Financial Support (SAUFS) Scholarship**
	Awarded scholarship of full fee waiver (Rs. 7000 / pm + 22,000 tuition fee + 5,000 hostel fee) by SAU Financial Support (SAUFS) Scholarship, South Asian University, August 2010 - June 2013 for pursuing MCA, which is granted on a need cum merit based system.

🎓 Education

2015 – 2021	**Doctor of Philosophy**	Dept. of CSE, Tripura University
	Thesis Title: Moving Object Detection in Night Vision.	
2013 – 2015	**Master of Technology (74.65%)**	Dept. of CSE, Tripura University
	Thesis Title: Analysis and performance evaluation of ICA- based architectures for face recognition.	
2010 – 2013	**Master of Computer Application (76.88%)**	Dept. of CS, South Asian University
	Thesis Title: Evaluation and Analysis of Grammatical Linguistic Pattern over Social Science and Technology Textbooks.	
2007 – 2010	**Bachelor of Computer Application (69.82%)**	Dept. of IT, M.B.B. College

📋 Paper Presentation

2019	A Paper presented in 2nd International Conference on Innovations in Electronics, Signal Processing and Communication (IESC 2019)	NIT-Meghalaya
2018	A Paper presented in 18th IEEE International Conference on Advanced Learning Technologies (ICALT 2018)	IIT Bombay
2017	A Paper presented in 5th IEEE Region 10 Humanitarian Technology Conference (R10HTC 2017)	BUET Dhaka
2015	2 Paper presented in 17th International Workshop on Combinatorial Image Analysis (IWCIA 2015)	ISI Kolkata
2014	A Paper presented in National Seminar on E-Resource and E-Learning: Challenges and Opportunities for students	BBMC Agartala
2014	A Paper presented in National Conference on Innovations and Advancements in Information Technology	SIESCOMS Navi Mumbai

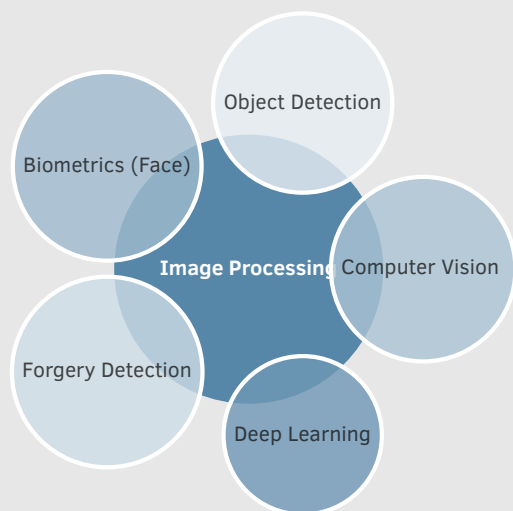## 📄 Certificates

February 2013	Computing for Data Analysis (R Programing), Coursera - Roger D. Peng, PhD Associate Professor of biostatistics Johns Hopkins Bloomberg School of Public Health
September 2012	DB2 9 Database and Application Fundamentals, IBM Certified Academic Associate

👥 Memberships

2011–2012	ACM student membership

Dr. Anu Singha

Research Interest –

- Object Detection
- Biometrics (Face)
- Image Processing
- Computer Vision
- Forgery Detection
- Deep Learning

Laboratory ——————

- ▶ Computer Vision Laboratory
- ▶ Department of Computer Science and Engineering
- ▶ Tripura University (A Central University)
- ▶ Suryamaninagar, Agartala, India

Active Reviewer ——

- ▶ Journal of Multimedia Tools and Applications, Springer
- ▶ Journal of National Academy Science Letters, Springer

📖 Publications

Journals

2021 — **Journal: IEEE Transactions on human-machine systems, IEEE (Under Review)** IF-3.374 (SCI)
Title: Novel Deeper AWRDNet: Adverse Weather-Affected Night Scene Restorator Cum Detector Net for Accurate Object Detection

2020 — **Journal: IETE Technical Review, Taylor&Francis (Under Review)** IF-1.845 (SCI)
Title: A Survey on Degraded and Non-degraded Computer Vision based Methodologies, Taxonomy, Analysis for Object Detection

2020 — **Journal: Multimedia Tools and Applications, Springer** IF-2.313 (SCI)
Title: Akin-based Orthogonal Space (AOS): a subspace learning method for face recognition

2019 — **Journal: IEEE Transactions on Circuits and Systems for Video Technology** IF-4.133 (SCI)
Title: Salient Features for Moving Object Detection in Adverse Weather Conditions during Night Time

2018 — **Journal: Expert Systems With Applications, Elsevier** IF-5.452 (SCI)
Title: Enhancement of Robustness of Face Recognition System through Reduced Gaussianity in Log-ICA

Conferences

2021 — **Proceedings: 28th IEEE International Conference on Image Processing (ICIP) [Tier II Conference], IEEE** Anchorage, Alaska, USA
Title: Annotated Video Splice Detection Dataset in Outdoor Degraded Vision For Digital Forensic Analysis (Communicated)

2020 — **Proceedings: 11th IEEE International Conference on Computing Communication and Networking Technologies (ICCCNT 2020), IEEE** IIT-Kharagpur
Title: A Comparative Study of Background Segmentation Approaches in Detection of Person with Gun under Adverse Weather Conditions

2019 — **Proceedings: 26th IEEE International Conference on Image Processing (ICIP) [Tier II Conference], IEEE** Taipei, Taiwan
Title: TU-VDN: Tripura University Video Dataset at Night Time in Degraded Atmospheric Outdoor Conditions for Moving Object Detection

2019 — **Proceedings: 2nd International Conference on Innovations in Electronics, Signal Processing and Communication (IESC 2019), IEEE** NIT Meghalaya
Title: Moving Object Detection in Night Time: A Survey

2018 — **Proceedings: 18th IEEE International Conference on Advanced Learning Technologies (ICALT 2018), IEEE** IIT Bombay
Title: Object Recognition using Representative Score Features

2017 — **Proceedings: 5th IEEE Region 10 Humanitarian Technology Conference (R10HTC 2017), IEEE** BUET Bangladesh
Title: Enhancing Performance of PCA, ICA through Distribution Transformation

2017 — **Proceedings: International Conference on Innovations in Electronics, Signal Processing and Communication (IESC 2017), IEEE** NIT Meghalaya
Title: A Comparative Analysis of Visual and Thermal Face Image Fusion based on Different Wavelet Family

2016 — **Proceedings: 6th International Conference On Advances In Computing and Communications (ICACC 2016), Procedia Computer Science, Elsevier (Scopus Indexed)** Cochin, India
Title: Evaluation and Analysis of Grammatical Linguistic Pattern over Social Science and Technology Textbooks

2015 — **Proceedings: 17th International Workshop on Combinatorial Image Analysis (IWCIA 2015), Lecture Notes Computer Science (LNCS), Springer (Scopus Indexed)** ISI, Kolkata
Title: Analysis and Performance Evaluation of ICA-based Architectures for Face Recognition

Book Chapters

2017   **Book Title: Modern Technologies for Big Data Classification and Clustering, IGI Global**   Scopus Indexed
Book Chapter Title: Methodologies and Technologies to Retrieve Information From Text Sources