Ms. ARTI RANJAN
Assistant Professor
Department of Computer Science
Niels Brock Copenhagen Business College, Denmark
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ORCID: **https://orcid.org/0000-0002-4392-0216**

EDUCATION

(Ph. D) (CSE)
(Thesis Submitted, Feb 2026)
Indira Gandhi Delhi Technical University for Women (IGDTUW), New Delhi

Qualified **UGC NET, Dec 2018.**
M. Tech. (CSE)
MNNIT, Allahabad, India
CPI= 7.06/ 70%
2015

B.Tech. (CSE)
IERT, Allahabad, Indi a
71.00 %
2009
INTERMEDIATE
U.P Board2005
(61%)
HIGH SCHOOL
U.P Board
2003(61%)

SKILL SETS

PROGRAMMING LANGUAGES
C, Python, C++, MySQL, LISP, Weka

Tools:
Pytorch, Pycharm, Google Colab, Netkit, Oracle Virtual Box

Dedicated and experienced academic professional in Computer Science and Engineering with over 15 years of teaching experience in higher education institutions in India and Denmark. Currently serving as an Assistant Professor at Niels Brock Copenhagen Business College, Denmark. Strong teaching expertise in core Computer Science subjects. Research interests include Artificial Intelligence, Machine Learning, Deep Learning, Image Processing and Computer Vision, Signal Processing, Intelligent Visual Systems, and AI-driven decision-support systems.

Holds an M.Tech from MNNIT Allahabad, B.Tech from I.E.R.T. Allahabad and an, with a Ph.D. thesis submitted in Computer Science and Engineering at IGDTUW, New Delhi (February 2026), focusing on AI-based restoration of degraded images, video, and text data. Published in SCIE and Scopus-indexed journals and conferences, contributed to edited books and book chapters, and received Commendable Research Awards (2023 and 2024) from IGDTUW, New Delhi in recognition of research contributions and excellence. Committed to research-driven teaching, interdisciplinary collaboration, and the development of intelligent technologies for real-world applications. Actively serving as Reviewer/ Session Chairs in various National and International Journals and Conference.

AREA OF INTEREST

Core Subjects	Research Interests	Languages/platforms
• Operating Systems • Computer Networks • Data Mining • Software Engineering • Cloud Computing • Computer Organization and Architecture	• AI/ML/DL • Image Processing and Computer Vision • Signal Processing • Intelligent Visual Systems, • AI-driven decision-support systems	• Programming in C • Python • Google Colab • Pytorch/ Pycharm, • Scikit-learn • Netkit • Oracle Virtual Box

PhD Thesis

"Development of an Optimized System for Indoor and Outdoor Blurred Images"

Description: Developed a comprehensive, unified framework for restoring degraded visual data across **image, video, and text modalities**, addressing both indoor and outdoor blur variations. The research introduces novel deep learning architectures and optimized variants tailored for real-world, resource-constrained environments.

Proposed **VAEWGAN**, a hybrid generative model integrating Variational Autoencoders with Wasserstein GANs for high-fidelity image deblurring, enabling robust reconstruction under complex blur distributions. Designed **ViConNet**, a spatio-temporal deep network for video deblurring that leverages temporal consistency and motion-aware feature fusion for real-time applications. Additionally, developed TextFormer, a transformer-based architecture for blurred document and scene text restoration, enhancing downstream OCR performance.

The work further incorporates optimization strategies, including lightweight model design, attention-based feature refinement, and uncertainty-aware reconstruction, achieving superior performance-efficiency trade-offs suitable for edge and mobile deployment. This research contributes to advancements in computer vision, deep learning, and intelligent visual systems.

EXPERIENCE: 15 Years

S. No.	College Name	Position	Period	Work Assigned
1	Niels Brock Copenhagen Business College (NBCBC), Denmark	Assistant Professor	October 2026 to present	• Taking Classes and Labs • Mentoring • Project Guide
2.	Sharda University, Greater Noida, India	Assistant Professor-III	July 2024- Dec 2024	• Taking Classes and Labs • NAAC/NBA criteria coordinator • Project Guide
3	Galgotias College of Engineering and Technology, Greater Noida, India	Assistant Professor-III	Aug 2019- July 2024 (5 yr.)	• Taking Classes and Labs • NAAC/NBA criteria coordinator • Mentoring Coordinator • Events Coordinator (Technical and Non-Technical)
4	GNIOT, Gr. Noida, India	Assistant Professor-II	Jan 2018- Aug 2019 (1.8 yr)	• Taking Classes and Labs • Lab Coordinator
5	LDCITS, Allahabad, India	Assistant Professor-I	Aug 2015-Nov 2017 (3.2 yr)	• Taking Classes and Labs • Time-Table Coordinator
6	LDCITS, Allahabad, India	Lecturer	Aug 2009- July 2013 (4 yr)	• Taking Classes and Labs

PUBLICATIONS

Journals

1. Arti Ranjan, Ravinder M. **"Optimized spatial relation-aware graph neural network based facial emotion recognition for reducing video conferencing fatigue".** Journal of Visual Communication and Image Representation**. 2025 Sep 7. (SCIE)- Q1**

2. Arti Ranjan, Ravinder M. **"ViConNet: Temporal-Spatial Probe Distilled (TSPD) Network for Real-Time Video Deblurring and Enhancement with Facial Micro-expression and Pose Estimation for Real-Time Video Conferencing**". Circuits, Systems, and Signal Processing. 2025 Aug 26:1-43. **(SCIE)- Q2**

3. Arti Ranjan, Ravinder M. **"UNetDeblur: Optimized Lightweight and Efficient Motion Deblurring for Mobile Platforms in real-time scenarios"** Circuits, Systems and Signal Processing, May 24, 2025.

(SCIE)-Q3

4. Arti Ranjan, Ravinder M. "**VAEWGAN-NCO in image deblurring framework using variational autoencoders and Wasserstein generative adversarial network"**. Signal, Image and Video Processing. Mar 25, 2024. **(SCIE)- Q2**
5. Arti Ranjan, Ravinder M. **"Video-Captioning Evaluation Metric for Segments (VEMS): A Metric for Segment-level Evaluation of Video Captions with Weighted Frames**" Multimedia Tools and Applications (2023). **(SCIE)- Q1.**
6. Arti Ranjan, Ravinder M., Ashih Arya **"OmniDeblur-MoE: Cross-Modality Deblurring Using a Lightweight Transformer-Based Mixture-of-Experts (MoE) Framework**," *Circuits Syst Signal Process* (2026). **(SCIE)**
7. **Navaneethan, S., Ranjan, A., Amutha, M. *et al.* Advanced wireless fetal monitoring system using STBC, early FECG prediction, and high-efficiency encryption hardware. *Analog Integr Circ Sig Process* 125, 23 (2025). (SCIE)**
8. Arti Ranjan, Ravinder M. **ROBDD-TrOCRBERTa: a novel robust-optimized blurred document text deblurring and completion with DCGAN-TrOCR and DistilRoBERTa.** Int. j. inf. tecnol. (2024). **(Scopus)**
9. Ranjan, A., Ravinder, M. **"Data Augmentation for Blurred-Text Image Deblurring using Non-Euclidean extrapolations"** International journal of information technology. 2025, **(Scopus)**
10. Arti Ranjan, Ravinder M., **"Deep Salient Video Deblurring (DSVD) Framework using GAN"** Submission code: IJCVR-134192 in the Inderscience journal **"Int. J. of Computational Vision and Robotics" (Accepted)-Scopus**

Conferences

1. Arti Ranjan, **"Light-SustainFormer: A Lightweight Temporal Fusion Transformer-Based CNN–BiGRU Framework for Sustainable Smart Building Energy Forecasting" to the International Conference on Intelligent Computing and Communication Systems (ICICCS-2026), organized by BCU, United Kingdom. (Accepted).**
2. Arti Ranjan, Sheikh Azeemuddin **"Image Denoising using Convolutional Neural Network",** International Conference on Advances in Computing, Communication Control and Networking, **ICAC3N, April 2022- Scopus Indexed**
3. Arti Ranjan, Ravinder M. **"Deep Learning based Image Deblurring: A Comparative Survey",** *2022 4th International Conference on Advances in Computing, Communication Control and Networking (ICAC3N)*, Greater Noida, India, 2022, pp. 996-1002, **(Scopus)**

4. Arti Ranjan, Dr. Inderpreet Kaur, Dr. Vishnu Sharma **"A Review of PSO-Based Task and Workflow Scheduling Analysis in Cloud Environment"**, DoSCI 2021 (Doctoral Symposium on Computational Intelligence), March 2021
5. Arti Ranjan, Dr. Ravinder M. **"Quantum-Techniques in Image Processing",** IEEE 2020 2nd International Conference on Advances in Computing, Communication Control and Networking (ICACCCN), Dec 2020- **Scopus**
6. Arti Ranjan, Ravinder M., **Enhanced Image Deblurring with the Fusion of Generative Adversarial Networks and Transformer Models**, 1st International Conference on Innovation & Emerging Trends in Computing & Information Technology, 2025, **Scopus**
7. Arti Ranjan, Ravinder M., **Leveraging ShuffleNet and LLaVA-Phi for State-of-the-Art Image Deblurring and Description for Mobile Devices**, Signal Processing and Advance Research in Computing', IEEE Conference, 2024 - **Scopus**
8. A. Ranjan, A. Kumar, S. Singh and S. P. Singh, **"Text Identification from Blurred Images: A Survey,"** 2024 1st International Conference on Advances in Computing, Communication and Networking (ICAC2N), Greater Noida, India, 2024, pp. 183-190, doi: 10.1109/ICAC2N63387.2024.10895817.

Book Chapters

1. Ranjan A, Kaur I, Sharma V. "**Demystifying Big Data for Healthcare**". 'Empowering Healthcare through AI and Blockchain'**. 2026 Feb 4, Wiley.**
2. Arti Ranjan, Dr. Ravinder M., **"Text Extraction from Blurred Images through NLP- based post-processing**" in the book **"**A Handbook of Computational Linguistics: Artificial Intelligence in Natural Language Processing-2024 (Bentham Science, **ESCI and Scopus**).
3. Ranjan A. "**Beyond Syntax and Semantics: The Quantum Leap in Natural Language Processing".** A Handbook of Computational Linguistics: Artificial Intelligence in Natural Language Processing. 2024 Aug 12:255, Bentham Science- ESCI and **Scopus.**
4. Ranjan A, Agrawal AK "**Post-quantum image security: Challenges and opportunities."** In the book Digital Image Security: Techniques and Applications with press Taylor & Francis Group, USA, 2023-**Scopus.**
5. Arti Ranjan, M. Ravinder, **"Image Security using Quantum Hash Functions"** in the book Digital Image Security: Techniques and Applications' with press Taylor & Francis Group, USA, 2023-**Scopus.**

Edited Books

1. Book Editor for the book titled **"Advanced Image Processing and Video Intelligence Applications"** published with **Bentham Science Publishers** indexed in **(ESCI and Web of Science Indexed), 30th June 2026** **https://benthambooks.com/bookshelf/search_book.php?search_book=Advanced+Image+Processing+and+Video+Intelligence+Applications&search=submit&type=book**
2. Book Editor for the book titled **"Blockchain and Federated Learning: Transforming Image Processing in the Internet of Vehicles"** to be published with **Bentham Science Publishers** indexed in **(ESCI and Web of**

Science Indexed)

Authored Books

1. Authored Book-**Research Design and Methodology** ISBN: 9789364227896, Edition: **First Edition,** 23 April 2025.
2. Authored Book-**Internet of Things (IOT): Principles and Techniques** ISBN: 9788119338986, Edition: **First Edition, 2023**
3. Published an e-book **"Cloud-Computing" ISBN: 978-81-948662-6-8, 2021**
4. Published an e-book **"Emerging Technology for Engineering" ISBN: 978-81-948662-3-7, 2021**

Patents:

1. Patent published in Intellectual Property India **"Deep Learning Model Based Fraudulent Incoming Call Detection System",** Application No. 202111009215, PUBLICATION DATE: 12/03/2022.
2. Patent published in Intellectual Property India **"A system based on Cloud, ML and Internet of Things for early warning of flooding disaster",** Application Number. 202311013706, PUBLICATION DATE: 1/03/2023.

Achievements:

1. Received **"Commendable Research Award- 2023 & 2024"** from Indira Gandhi Delhi Technical University for Women, New Delhi, India, in recognition of the quality, impact, and innovation demonstrated through my research contributions.
2. Qualified UGC NET, **Dec 2018.**
5. Co-Founder of YouTube Channel **"University Academy"**-(Technical Subjects-CSE). Recorded Video lecture series of Cloud-Computing and Software Engineering (More than 1 Million Views)

Software Engineering:

https://www.youtube.com/watch?v=imzSpM_5R6k&list=PL-JvKqQx2AtdZ7m5Nui3RwqEnNcZZ9N1L

Cloud Computing:

https://www.youtube.com/watch?v=0rrDqBIP2qU&list=PL-JvKqQx2AtfQ8cGyKsFE7Tj2FyB1yCkd

Events and Responsibilities

1. One-week International FDP on "**Recent Research Trends in CS and IT"** Organized at Sharda University, July 2024.
2. 2 days IEEE conference 2024 at Galgotias College of Engineering and Technology, Greater Noida, India (Session Chair, Paper Reviewer, Member of Technical Committee)
3. 2 days IEEE conference 2023 at Galgotias College of Engineering and Technology, Greater Noida, India (Session Chair, Paper Reviewer, Member of Technical Committee)
4. Faculty Seminar (Knowledge-Sharing) Coordinator at Galgotias College of Engineering and Technology, Greater

Noida, India

5. Member of IQAC (Internal Quality Assurance Cell) /NBA / NAAC at Galgotias College of Engineering and Technology, Greater Noida, India

CERTIFICATION

1. Completed 40 hours of Course in Pedagogy at Niels Brock Copenhagen Business College, Denmark
2. Machine Learning Foundations: A Case Study Approach from Coursera
3. Programming for Everybody (Getting Started with Python) from Coursera
4. AWS Fundamentals: Migrating to the Cloud from Coursera

FDP/ ONLINE COURSES/WEBINARS/ WORKSHOPS ATTENDED:

1. FDP on **"AI for Building Speech and Vision Applications using Python"** from 21/08/2023 to 25/08/2023 conducted by GCET, Greater NoidaRemote Centre One Week FDP **"Computer Vision Using OpenCV"** from 07/08/2023 to 11/08/2023conducted by NITTTR, Chandigarh.
2. Remote Centre One Week FDP **"Data Science Using R"** from 17/07/2023 to 21/07/2023 conducted by NITTTR, Chandigarh.
3. Online One week FDP on **"Introduction to Machine Learning"** from 21-06-2021 to 25-06-2021 conducted by Department of CSE, Indira Gandhi Delhi Technical University for Women (IGDTUW), New Delhi.
4. One-Week Online FDP on **Machine Learning Application in Image Processing** conducted by Department of CSE, Indira Gandhi Delhi Technical University for Women (IGDTUW), New Delhi.
5. Five Days FDP on **Machine Learning**, organized by Department of IT, ABES Engineering College, Ghaziabad.
6. One-Week International FDP on **Digital Learning with Multidisciplinary Approaches (DLMA)**- 2020, conducted at JSS Academy of Technical Education, Noida.
7. Five Days FDP on **Arduino** organized by Department of Information Technology, Manakula Vinayagar Institute of Technology, Puducherry in association with Spoken Tutorial, IIT Bombay.
8. One Week Online National Level Online FDP on **"Recent Advancements in Artificial Intelligence"** organized by the Department of Computer Science and Engineering, Shri Vishnu Engineering College for Women (Autonomous): Bhimavaram.
9. One-week FDP on **"Machine Learning Algorithms, Applications, Advantages"** organized by Department of Computer Science and Engineering, Kamala Institute of Technology and Science.
10. Attended one-week workshop on **Information Security and Computer Forensics (Wiscf-2014)**

Sponsored by **TEQIP, MNNIT Allahabad.**

PERSONAL DATA

NAME: Arti Ranjan
DATEOF BIRTH: August 26, 1989
FATHER'S NAME: Mr. Ram Kishore
HUSBAND'S NAME: Mr. Ashish K. S. Arya.
ADDRESSS: Copenhagen, Denmark

DECLARATION

I hereby inform you that the above information is true to the best of my knowledge. If given chance, I will try my best to come true to your aspiration.

Date:

Place **Ms. Arti Ranjan**