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Bio Data

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I am an **Assistant Professor at Maulana Azad National Institute of Technology (MANIT), Bhopal, M.P., India.** My research interest lies in Convolutional Neural Network based Image Restoration Techniques. I am always inquisitive about new technologies in the field of Deep Learning. Currently, I am working on convolutional neural network based image restoration techniques for additive White Gaussian noise and multiplicative speckle noise removal. The title of my thesis is ***CONVOLUTIONAL NEURAL NETWORK BASED IMAGE RESTORATION FOR ADDITIVE WHITE GAUSSIAN NOISE AND MULTIPLICATIVE SPECKLE NOISE.*** **I have done postdoc in the Department of Radiology from Northwestern University, USA.**

Education

June 2024 - July 2024 **Postdoctoral Researcher** at **Northwestern University, Chicago, Illinois, USA**.

2017–2023 **PhD, Computer Science & Engineering**, *Indian Institute of Technology*, Patna, India, cgpa = 8.88/10.

2014–2016 : **Master of Technology, High Performance Computing**, *National Institute of Technology*, Durgapur, India, cgpa = 9.69/10.

2010–2014 : **Bachelor of Technology, Information Technology**, *University of Kalyani (public state university), West Bengal, India*, cgpa = 9.39/10.

Publications

Journal Articles

2023 **Thakur, Ramesh Kumar** and Suman Kumar Maji. Multi scale pixel attention and feature extraction based neural network for image denoising. ***Pattern Recognition***, volume 141, page 109603. Elsevier, 2023.

2022 **Ramesh Kumar Thakur** and Suman Kumar Maji. Gradient and multi scale feature inspired deep blind gaussian denoiser. ***IEEE Access***, volume 10, pages 34170–34184, 2022.

2022 **Ramesh Kumar Thakur** and Suman Kumar Maji. Agsdnet: Attention and gradient-based sar denoising network. ***IEEE Geoscience and Remote Sensing Letters***, volume 19, pages 1–5. IEEE, 2022.

2020 Suman Kumar Maji, **Ramesh Kumar Thakur**, and Hussein M Yahia. Structure-preserving denoising of sar images using multifractal feature analysis. ***IEEE Geoscience and Remote Sensing Letters***, volume 17, pages 2100–2104. IEEE, 2020.

2020 Suman Kumar Maji, **Ramesh Kumar Thakur**, and Hussein M Yahia. Sar image denoising based on multifractal feature analysis and tv regularisation. ***IET Image Processing***, volume 14, pages 4158–4167. IET, 2020.

2015 Chandran Saravanan and **R Kumar**. A novel steganography technique for securing user's digitized handwritten signature for public authentication systems. *Discovery*, volume 43, pages 193–197, 2015.

In Conference Proceedings

2022   **Ramesh Kumar Thakur** and Suman Kumar Maji. Sifsdnet: Sharp image feature based sar denoising network. In *2022 42nd International Geoscience and Remote Sensing Symposium (IGARSS)*. IEEE, 2022.

2022   **Ramesh Kumar Thakur** and Suman Kumar Maji. Image denoising based on multi domain feature inspired convolutional neural network. In *2022 IEEE Region 10 Conference (TENCON)*. IEEE, 2022.

2022   **Ramesh Kumar Thakur** and Suman Kumar Maji. Blind gaussian deep denoiser network using multi- scale pixel attention. In *2022 IEEE International Conference on Visual Communications and Image Processing (VCIP)*. IEEE, 2022.

2022   Suman Kumar Maji and **Ramesh Kumar Thakur**. A successive variational model for multiplicative noise and blur removal. In *2022 IEEE 19th India Council International Conference (INDICON)*. IEEE, 2022.

2020   **Ramesh Kumar Thakur** and Suman Kumar Maji. A variational approach to image despeckling under varied blur. In *2020 7th International Conference on Signal Processing and Integrated Networks (SPIN)*, pages 55–60. IEEE, 2020.

2020   Kshitij Susheel Jauhri, **Ramesh Kumar Thakur**, and Suman Kumar Maji. A blind metric based variational approach for ultrasound image denoising. In *2020 International Conference on Contemporary Computing and Applications (IC3A)*, pages 34–39. IEEE, 2020.

2017   Saurabh Shrivastava, **Ramesh Kumar Thakur**, and Pratibha Tokas. Classification of hazy and non-hazy images. In *2017 International Conference on Recent Innovations in Signal processing and Embedded Systems (RISE)*, pages 148–152. IEEE, 2017.

2016   **Ramesh Kumar Thakur** and Chandran Saravanan. Classification of color hazy images. In *2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT)*, pages 2159–2163. IEEE, 2016.

2016   **Ramesh Kumar Thakur** and Chandran Saravanan. Analysis of steganography with various bits of lsb for color images. In *2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT)*, pages 2154–2158. IEEE, 2016.

Academic Achievements

2017   Cleared ***GATE Examination in CS/IT*** with Score 421/1000.

2016   Cleared ***GATE Examination in CS/IT*** with Score 548/1000.

2014   Cleared ***GATE Examination in CS/IT*** with Score 533/1000.

2014   Cleared ***CSIR NET Examination in Engineering Science*** with All India Rank 163.

Awards & Recognition

2016   Recipient of ***"Institute Gold Medal"***, in **M.Tech** at **NIT Durgapur**.

2014   Recipient of ***"First Class First"***, in **B.Tech** at **University of Kalyani, West Bengal**.

Working Experience

Nov 2024 - Present   Teaching experience of **1 month** as **Assistant Professor** at **Maulana Azad National Institute of Technology (MANIT), Bhopal, M.P.**.

Sep 2024 - Nov 2024   Teaching experience of **2 months** as **Assistant Professor** at **National Institute of Technology (NIT), Jalandhar, Punjab**.

July 2023 - Sep 2024   Teaching experience of **1 year 2 months** as **Assistant Professor** at **Kalinga Institute of Industrial Technology, KIIT University, Bhubaneswar, Odisha**.

June 2024 - July 2024	Research experience of **1.5 months** as **Postdoctoral Researcher (Clinical Research Associate)** at **Northwestern University, Chicago, Illinois, USA**.
July 2022 - June 2023	Teaching experience of **1 year** as **Assistant Professor** at **Institute of Technical Education and Research (ITER), Siksha 'O' Anusandhan University, Bhubaneswar, Odisha**.
June 2016 - April 2017	Teaching experience of **1 year** as **Assistant Professor** at **Smt. S. R. Patel Engg. College, Gujarat**.