

PUBLICATIONS

International Journals

1. Kumar Mohit, Maninder Singh, **Rajeev Gupta**, Basant Kumar, "Encoder-decoder CNN based morphological filtration approach for automatic noise removal from ultrasound images," Biomedical Signal Processing and Control. <https://doi.org/10.1016/j.bspc.2026.110152>
2. Maninder Singh, Amrita Mohan, Umang Tripathi, Shashwat Pathak, **Rajeev Gupta** & Basant Kumar, "Multi-scale hybrid ResNet-Transformer with distance-aware learning for interpretable BI-RADS mammographic classification," Scientific Reports, 2026. <https://doi.org/10.1038/s41598-026-40906-8>
3. Yajush Rai, Suyash Kumar Singh, Anand Sharma, Smriti Agarwal and **Rajeev Gupta**, "Frequency and bandwidth reconfigurable MIMO dielectric resonator antenna and its optimization using Taguchi neural network," International Journal of Microwave and Wireless Technologies, Volume 17, Issue 8, October 2025.
4. Jorwal, S., Dubey, A., **Gupta, R.**, & Agrawal, S. (2025). "An ultrawideband graphene microwave absorber for advanced stealth technology", Physica Scripta, vol. 100, no. 4, pp. 045550. (SCI, IF-2.6)
5. Yajush Rai, Anand Sharma, Smriti Agarwal, **Rajeev Gupta**, "Circularly Polarized Dielectric Resonator based MIMO Antenna for Sub-6 GHz 5G Cognitive Radio Applications", Physica Scripta 99 (2024) 065547, IOP Publishing (IF = 2.6, SCI-E)
6. Jorwal, S., Dubey, A., **Gupta, R.**, & Agrawal, S. (2024). "A tunable, dual band graphene terahertz absorber with equivalent circuit modelling", Optical and Quantum Electronics, Springer, 56(8), 1377. (SCI, IF-3.3)
7. Jorwal, S., Dubey, A., **Gupta, R.**, & Agrawal, S. (2024) "Triple-Band Ultrathin Minkowski Fractal-Inspired Polarization-Insensitive Microwave Absorber for Stealth Application" Journal of Electronic Materials, Springer, 1-9. (SCI, IF-2.2)
8. Maninder Singh, Vishal Gupta, **Rajeev Gupta**, Basant Kumar, Deepak Agrawal, "A Novel Method for Prediction of Raised Intracranial Pressure Through Automated ONSD and ETD Ratio Measurement From Ocular Ultrasound", Ultrasonic Imaging, 2023 Sep. 12; 1617346231197593. doi: 10.1177/01617346231197593.
9. Mohit Kumar*, **Gupta Rajeev** and Kumar Basant, "A Survey on the Machine Learning Techniques for Automated Diagnosis from Ultrasound Images," Current Medical Imaging, 2024; 20(). 29 May 2023. doi: 10.2174/1573405620666230529112655.
10. Mohit Kumar*, **Gupta Rajeev** and Kumar Basant, "Computer-aided Diagnosis of Various Diseases Using Ultrasonography Images," Current Medical Imaging, 2024; 20(). 05 April 2023. <https://dx.doi.org/10.2174/1573405619666230306101012>

11. Sunil Jorwal, Ashish Dubey, **Rajeev Gupta** and Smriti Agarwal, "A Review: Advancement in Metamaterial Based RF and Microwave Absorbers," *Sensors and Actuators A: Physical*, Volume 354, 2023, 114283, ISSN 0924-4247. <https://doi.org/10.1016/j.sna.2023.114283>
12. Maninder Singh, Vishal Gupta, Pramod Kumar Singh, **Rajeev Gupta**, Basant Kumar, Fayadh Alenezi, Adi Alhudhaif, Sara A. Althubiti and Kemal Polat, "Automatic Detection of Hard Exudates Shadow Region within Retinal Layers of OCT Images," *Hindawi Mathematical Problems in Engineering*, Volume 2022, Article ID 7128547, 14 pages. <https://doi.org/10.1155/2022/7128547>
13. Samarjit Singh, Anil Kumar Maurya, **Rajeev Gupta**, Abhishek Kumar and Dharmendra Singh, "Improved microwave absorption behavioral response of Ni/SiC and Ni/SiC/Graphene composites: A comparative insight," *Journal of Alloys and Compounds*, ELSEVIER, Volume 823, 15 May 2020, 153780.
14. **Rajeev Gupta**, Vishaal Gupta, Basant Kumar, Pramod Kumar Singh, Amit Kumar Singh, "A Novel Method for Automatic Retinal Detachment Detection and Estimation using Ocular Ultrasound Image," *Multimedia Tools and Applications*, Springer (2018), volume 79, 11143-11161. <https://doi.org/10.1007/s11042-018-6032-3>
15. **Rajeev Gupta**, Amit Kumar and Utkarsh Besaria, "Four Element Triangular Wideband Dielectric Resonator Antenna excited by coaxial probe," *IOSR Journal of Electronics and Communication Engineering*, Volume 6, Issue 4 (May-June 2013), pp. 1-6.

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1. Kunvar Kant Patel, Ayush Kanodia, **Rajeev Gupta**, Basant Kumar, "Multi-modal data fusion based cardiac disease prediction using late fusion and 2D CNN architectures," in: 11th IEEE International Conference on Signal Processing and Integrated Networks (SPIN 2024) (Accepted).
2. Yajush Rai, Moulik Razdan, Rahul Bajaj, Avanish Singh Rana, **Rajeev Gupta**, Smriti Agarwal, "Machine learning inspired classification model of different edible oil samples using high sensitivity microwave sensor," in: 11th IEEE International Conference on Signal Processing and Integrated Networks (SPIN 2024) (Accepted).
3. M. Singh, **R. Gupta**, B. Kumar and D. Agrawal, "Development and Validation of Artery-Vein Ratio Measurement Based on Deep Learning Architectures," *TENCON 2023 - 2023 IEEE Region 10 Conference (TENCON)*, Chiang Mai, Thailand, 2023, pp. 1-6. doi: 10.1109/TENCON58879.2023.10322542.
4. K. Mohit, A. Shukla, **R. Gupta**, P. K. Singh, K. Agarwal and B. Kumar, "Contrastive Learning Embedded Siamese Neural Network for the Assessment of Fatty Liver," *TENCON 2023 - 2023 IEEE Region 10 Conference (TENCON)*, Chiang Mai, Thailand, 2023, pp. 1261-1265. doi: 10.1109/TENCON58879.2023.10322413.

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6. S. Jorwal, A. Dubey, **R. Gupta** and S. Agarwal, "Design and Optimization of Ultrawideband Graphene based Polarization Converter," 2023 First International Conference on Microwave, Antenna and Communication (MAC), Prayagraj, India, 2023, pp. 1-5. doi: 10.1109/MAC58191.2023.10176338.
7. K. Mohit, **R. Gupta** and B. Kumar, "Self-Supervised Contrastive Learning for Covid-19 Classification from Computed Tomography Images," IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), 24 December 2022, IIIT Allahabad, India. doi: 10.1109/UPCON56432.2022.9986406.
8. Yajush Rai, Rahul Gupta, Ravi Prakash, Ravi Kumar Verma, **Rajeev Gupta**, Smriti Agarwal, "Design of a PRS-Based Wideband Circularly Polarized 2 x 2 MIMO Antenna for 5G / Milli-meter Wave Communication," IEEE 9th International Conference on Electrical, Electronics and Computer Engineering (UPCON), 2022.
9. Kumar Mohit, Jojo Johnson, Kumari Simran, **Rajeev Gupta**, Basant Kumar, "A survey study of diseases diagnosed through imaging methodology using ultrasonography," 2nd International Conference on Communication and Signal Processing (VCAS 2019), MNNIT Allahabad, 21-23 October 2019.
10. Shailesh Kumar, Ajitabh Kumar Srivastava, Abhijeet Jha, Abhinav Adarsh, **Rajeev Gupta**, Basant Kumar, "Implementation of Linear Structuring Element in Open CV for Blood Vessel Segmentation from Color Fundus Images," 10th ICCNT 2019, IIT Kanpur, 6-8 July 2019.
11. Aniket Pratik, Maninder Singh, Kokkula Sriraj, Meesala A. Kumar, **Rajeev Gupta**, Deepak Agrawal and Basant Kumar, "Computer Assisted Detection of Good View Frame from USG Video for ONSD Measurement," Computer Assisted Medical Interventions: Scientific Problems, Tools and Clinical Applications, Surgetica, 17-18 June 2019, Rennes, France.
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14. **Rajeev Gupta**, Abhishek Singh, Pramod Kumar Singh, Ayushi Chandra, Basant Kumar, "Automated Detection of Retinal Detachment from Ocular Ultrasound using Image Thresholding," SPIN-2018, Amity University, Noida.

15. Digvijay Singh Chauhan, Abhinav Adarsh, Basant Kumar, **Rajeev Gupta**, "Double Secret Key Based Medical Image Watermarking for Secure Telemedicine in Cloud Environment," Proc. TSP-2017, pp. 660-664, July 5-7, Barcelona, Spain, 2017.
16. Sharad Kumar Yadav, Shailesh Kumar, Basant Kumar and **Rajeev Gupta**, "Comparative Analysis of Fundus Image Enhancement in Detection of Diabetic Retinopathy," IEEE Humanitarian Technology Conference, Dayalbagh, Agra, Dec 21-23, 2016.
17. Krishna Kumar, **Rajeev Gupta**, Basant Kumar, Chandras Kumar, "Effect of Wavelet Filters on SFQ Encoder Performance for Medical Images," International Conference on Telecommunication & Signal Processing, TSP-2014, pp. 682-685, July 1-3, Berlin, Germany, 2014.
18. Sharanyan Srikant, Arvind Kumar and **Rajeev Gupta**, "Implementing the Dynamic Time Warping algorithm in multithreaded environments for real time and unsupervised pattern discovery," IEEE International Conference on Computer and Communication Technology, ICCCT-2011, Sept 15-17, 2011, MNNIT, Allahabad, India.
19. **Rajeev Gupta**, Arvind Kumar, Rajeev Tripathi, "Performance Enhancement of QoS Routing Protocol for Ad-hoc networks using Smart Antenna," International Conference on Power Control and Embedded System, ICPCES-10, 28 Nov - 01 Dec 2010, MNNIT, Allahabad, organized by Department of Electrical Engineering and sponsored by IEEE, India.
20. **Rajeev Gupta**, Arun Kumar Singh, "Location Estimation based Security against Primary User Emulation attacks in Cognitive Radio networks," International Conference on Science, Engineering and Spirituality (ICES-10), 01-02 April 2010, S.E.S. College of Engineering, Naval Nagar, Dhule (M.H.).

Book Chapters

1. Vishal Gupta, Maninder Singh, **Rajeev Gupta**, Basant Kumar, Deepak Agarwal (2023). "Development of an Automated Algorithm to Quantify Optic Nerve Diameter Using Ultrasound Measures: Implications for Optic Neuropathies." In: Tistarelli, M., Dubey, S.R., Singh, S.K., Jiang, X. (eds) Computer Vision and Machine Intelligence. Lecture Notes in Networks and Systems, vol 586. Springer, Singapore. https://doi.org/10.1007/978-981-19-7867-8_23
2. Awasthi, A., Mohit, K., **Gupta, R.**, Kumar, B. (2022). "Data Collection Website with Brain Tumor and Pneumonia Detection." In: Dhawan, A., Tripathi, V.S., Arya, K.V., Naik, K. (eds) Recent Trends in Electronics and Communication. Lecture Notes in Electrical Engineering, vol 777. Springer, Singapore. doi:10.1007/978-981-16-2761-3_99.

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1. T. Siva Kumar, Arvind Kumar and **Rajeev Gupta**, "Use of Transaction Level Modeling in the design of a System on a Chip," in Proceedings of IEEE Sponsored National Conference on Microelectronics and Communication, NCMEC-2009, April 8-9, SRM University, Kancheepuram Dist, Tamil Nadu.

2. **Rajeev Gupta**, Arvind Kumar, "A Priority based Mobility Management for Low Handoff Latency in Mobile IP Networks," RAWMTEL-08, 18-19 Oct 2008, BIT, Mesra, Ranchi, J.H., India.