

BIO-DATA

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Invited Talk/Lecture in International Workshop/Symposium/Conference: 16

Invited Talk/Lecture in National Workshop/Symposium/Conference: 185

No. of Supervision of Ph. D Thesis: 22 (Awarded), 5 (ongoing)

No. of Supervision of M. Tech Dissertation: 41 (Awarded), 2 (ongoing)

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No. of Publications of SCI/SCIE/Scopus indexed Journals

1. Agrawal R. K., (with Chayanika Bhattacharjee, Aditi Priya),, Hybrid of Handcrafted features and Learnable features using Multimodal Fusion Network for Brain tumor segmentation, Computational Intelligence (2026) (Accepted)
2. Agrawal R. K., (with Pankaj, S Senthil Kumaran, Achal Kumar Srivastava, M Kumar, S Chaudhari, A Nehra, A Garg, R Ranjan, R M Pandey, D Joshi), Metabolic and Structural Insights of Cerebellar Dysfunction in Spinocerebellar Ataxia Type 12, Magnetic Resonance in Chemistry, 64 (2), 237-250, (2026)
3. Agrawal R. K., (Rashmi Mishra, Jyoti Singh Kirar), MSST-EEGNet: Multi-scale spatio-temporal feature extraction using inception and temporal pyramid pooling for motor imagery classification, Cognitive Neurodynamics, 19, 150 (2025)
4. Agrawal R. K., (with Pinki Kumari, Aditi Priya),Weighted fuzzy clustering approach with adaptive spatial information and Kullback–Leibler divergence for skin lesion segmentation, International Journal of Machine Learning and Cybernetics, 16(7): 5317-5337 (2025)
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6. Agrawal R. K., (with Snigdha Agrawal; S Senthil Kumaran; Bharti Rana; Achal Kumar Srivastava), Integration of graph network with kernel SVM and logistic regression for identification of biomarkers in SCA12 and its diagnosis, Cerebral Cortex, 34 (4), 38679476, (2024)
7. Agrawal R. K., (with Trasha Gupta; Rishu Sangal; S. Avinash Rao), Performance Evaluation of Thermography-Based Computer-Aided Diagnostic Systems for Detecting Breast Cancer: An Empirical

- Study, *ACM Transactions on Computing for Healthcare*, 5 (4), 1-30, (2024)
8. Agrawal R. K., (with Ashish Kumar; Leve Joseph), IterMiUnet: A lightweight architecture for automatic blood vessel segmentation, *Multimedia Tools and Applications*, 82, 43207–43231(2023)
 9. Agrawal R. K., (with D Kumar, Puneet Kumar), Fast and robust spatial fuzzy bounded k-plane clustering method for human brain MRI image segmentation, *Applied Soft Computing*, 133, 109939 (2023)
 10. Agrawal R. K., (with Baljeet Kaur, Swati Rath), Enhanced Depression Detection from Speech using Quantum Whale Optimization Algorithm for Feature Selection, *Computers in Biology and Medicine*, 150, 106122, November (2022)
 11. Agrawal R. K., (with Baljeet Kaur, Parul Agarwal), Multi-objective particle swarm optimization with guided exploration for multimodal problems, *Applied Soft Computing*, 120, 108684, (2022)
 12. Agrawal R. K., (with Swati Rath, Baljeet Kaur), Selection of Relevant Visual Feature Sets for Enhanced Depression Detection using Incremental Linear Discriminant Analysis. *Multimedia Tools Appl.* 81(13), 17703-17727 (2022)
 13. Agrawal R. K., (with D Kumar, Puneet Kumar), Fuzzy k-plane clustering method with local spatial information for segmentation of human brain MRI image, *Neural Comput. Applications*, 34(6), 4855- 4874 (2022)
 14. Agrawal R. K., (with D Kumar, Puneet Kumar), Bias-corrected intuitionistic fuzzy c-means with spatial neighborhood information approach for human brain MRI image segmentation, *IEEE Transaction on Fuzzy Systems*, 30 (3), 687-700 (2022)
 15. Agrawal R. K., (with Harsh Bhasin), Triploid genetic algorithm for convolutional neural network-based diagnosis of mild cognitive impairment, *Alzheimer's & Dementia*, 18(11), 2283-2291 (2022)
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Publications in Proceedings of Conferences

1. Agrawal R. K. (Mishra Rashmi), MSST-EEGNet: Multi-scale spatio-temporal feature extraction using inception and temporal pyramid pooling for motor imagery classification, Conference on Artificial Intelligence, Plash University, Mohali, India, (November 28-30, 2025).
2. Agrawal R. K. (Kumari, Pinki), Adaptive Spatial Information in Conjunction with Type-1 Fuzzy Clustering for Skin Lesion Segmentation, International Conference on Artificial Intelligence(ICAI), Shillong, India (4th October 2025).
3. Agrawal R. K. (Kumari, Pinki), Exploring Lightweight Deep Learning Models for Skin Lesion Classification towards Mobile Healthcare Applications, 7th International Conference on Communication and Computational Technologies (ICCCT), Goa, India (14-16 February 2025).
4. Agrawal R. K. (Avni Mishra, Pinki Kumari), Neutrosophic Clustering Method with Local Spatial Information for Dermoscopic Image Segmentation, The 12th International Conference on Big Data and Artificial Intelligence, Lecture Notes in Computer Science, vol 15526, 18-33, (2024) Springer, Cham. https://doi.org/10.1007/978-3-031-81821-9_2
5. Agrawal R. K. (Rathi, S., Kaur; B.) Bi-stage QWOA-Based Efficient Feature Selection for Enhanced Depression Detection Based on Facial Cues. In: Abraham, A., Hanne, T., Gandhi, N., Manghirmalani Mishra, P., Bajaj, A., Siarry, P. (eds) Proceedings of the 14th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2022). SoCPaR 2022. Lecture Notes in Networks and Systems, vol 648. 248-264, Springer, Cham. December 14-16, (2023).
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 15. Agrawal R. K., (with D Kumar), Intuitionistic Fuzzy Clustering Method with Spatial Information for MRI Image Segmentation, 2019 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2019, New Orleans, LA, USA, IEEE 2019, 1-7, (2019) ISBN 978-1-5386-1728-1
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 28. Agrawal R. K., (Ratnadip Adhikari), Combining Multiple Time Series Models Through A Robust Weighted Mechanism, First IEEE International Conference on Recent Advances in Information Technology (RAIT), ISM Dhanbad, Jharkhand (INDIA); 455 – 460, 2012

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34. Agrawal R. K., (Akshansh Gupta), Relevant Feature Selection from EEG Signal for Mental Task Classification. PAKDD (2) 2012: 431-442, Kuala Lumpur, Malaysia, May 29 - June 1, 2012, Proceedings, Part II. Lecture Notes in Computer Science 7302 Springer 2012, Montreal, Quebec, Canada, May 16-18, 2011, Proceedings. ACM 2011, ISBN 978-1-4503-0626-3.
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37. Agrawal R. K., (Hanuman Verma), Automatic Segmentation of MRI Brain Image using Type-3 Fuzzy C-Means Clustering Algorithm, Indian International Conference on Artificial Intelligence, Bangalore, 2011, 1060-1069, Tumkur, Karnataka State, India, December 14-16, 2011. IICAI 2011, ISBN 978-0-9727412-8-6.
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- Member, Nokia Advisory Committee, IIT Delhi
- Member, Project Review and Steering Group, DST

- Member, Project Review and Steering Group for the project at: CDAC Mohali; Tezpur University; Assam University; MNIT, Jaipur
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