

BIO-DATA

Ramesh Kumar Agrawal
Mobile: 9810115033
Telephone: 26738734(O)
email: rkajnu@gmail.com

Office Address: School of Computer & Systems Sciences,
Jawaharlal Nehru University, New Delhi- 110 067

Designation: Professor, School of Computer & Systems Sciences;
Professor, School of Engineering

Educational Qualifications:

Course	Institution/University
Ph.D	University of Delhi
M.Tech (C.S)	IIT, Delhi

Teaching Experience: 30 years approximately

Administrative Appointments:

Chief Coordinator Communication & Information Services, August, 2022 – till date

Dean, School of Engineering: January, 2018- January, 2020

Dean, School of Computer & Systems Sciences: July, 2015- July, 2017

Research Areas: Data Mining, Machine Learning, Pattern Recognition and Medical Imaging

Research Collaborations (with):

Prof. Madhuri Behari, Prof. Senthil Kumaran, Prof. Achal Kumar Srivastava, Dr. Leve Joseph from AIIMS

Number of Sponsored Projects: 05 (Completed)

Invited Talk/Lecture in International Workshop/Symposium/Conference: 15

Invited Talk/Lecture in National Workshop/Symposium/Conference: 180

No. of Supervision of Ph. D Thesis: 20 (Awarded), 5 (ongoing)

No. of Supervision of M. Tech Dissertation: 38 (Awarded), 3 (ongoing)

Scopus link: <https://www.scopus.com/authid/detail.uri?authorId=35291228900>

Orcid link: <https://orcid.org/0000-0003-3122-5096>

Google Scholar link: <https://scholar.google.com/citations?user=w3HUzy-W9GYC&hl=en>

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

1. Agrawal R. K., (with Aditi Priya; Bharti Rana), Noise and cluster size insensitive robust weighted fuzzy clustering for medical image segmentation, Soft Computing, (Accepted) (2025)
2. 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)
3. 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)
4. 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)
5. 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)
6. Agrawal R. K., (with Baljeet Kaur, Swati Rathi), Enhanced Depression Detection from Speech using Quantum Whale Optimization Algorithm for Feature Selection, Computers in Biology and Medicine, 150, 106122, November (2022)
7. 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)
8. Agrawal R. K., (with Swati Rathi, Baljeet Kaur), Selection of Relevant Visual Feature Sets for Enhanced Depression Detection using Incremental Linear Discriminant Analysis. Multimedia Tools

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 11. 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)
 12. Agrawal R. K., (with Baljeet Kaur, Parul Agarwal), Quantum inspired Particle Swarm Optimization with guided exploration for function optimization, *Applied Soft Computing*, 102, 107122, (2021)
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 14. Agrawal R. K., (with Harsh Bhasin), A combination of 3-D discrete wavelet transform and 3-D local binary pattern for classification of mild cognitive impairment, *BMC Medical Informatics and Decision Making*, 20, 1-10, (2020)
 15. Agrawal R. K., (with Baljeet Kaur, Surbhi Sharma), Quantum based Whale Optimization Algorithm for Wrapper Feature Selection, *Applied Soft Computing*, 89, 106092, (2020)
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Publications in Proceedings of Conferences

1. 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, (2024), Accepted
2. 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).
3. Agrawal R. K. (Kumar, P; Kumar, D), Kullback–Leibler Distance-Based Fuzzy K-Plane Clustering Approach for Noisy Human Brain MRI Image Segmentation. 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, 615-630. Springer, Singapore. (2023)
4. Agrawal R. K. (A. Priya, B. Rana), Fusion-based Multilevel Thresholding For Image Segmentation Using Evolutionary Algorithm; 2022 IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), Prayagraj, India, 2022, pp. 1-7, December (2022)
5. Agrawal R. K. (with Harsh Bhasin), Multiple-Activation Parallel Convolution Network in Combination with t-SNE for the Classification of Mild Cognitive Impairment. *BIBE 2021*: 1-7, (2021)
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19. Agrawal R. K., (Nitin Kumar, Ajay Jaiswal), A Comparative Study of Linear Discriminant and Linear Regression Based Methods for Expression Invariant Face Recognition, Advances in Signal Processing and Intelligent Recognition Systems, 23-32, 2014
20. Agrawal R. K., (Namita Aggarwal, Bharti Rana), Detection of Alzheimer's Disease via Statistical Features from Brain Slices, Proceedings of the Twenty-Sixth International Florida Artificial Intelligence Research Society Conference, FLAIRS 2013, St. Pete Beach, Florida. May 22-24, 2013. AAAI Press , 2013
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Membership of Boards/Committees (Present/Past):

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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
 - Member, Project Review and Steering Group, Defence Research and Development Organisation (DRDO)

- Expert Member, Scientific Expert Committee for evaluation of ASIAN-India R&D proposals, SERB, N Delhi
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- Member, Curriculum Development for UG and PG programs, MNIT, Jaipur
- Member, Curriculum Development for M.Sc. (Maths), Delhi Technological University, Delhi
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- Expert member for E-Content development for the subject, “Digital Image Processing and Machine Vision”, IIT, BHU, Varanasi
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