Aanchal Vij

Assistant Professor

School of Computer Science and Engineering, IILM University, Greater Noida aanchal.vij@iilm.edu | ORCID: 0000-0002-7940-0650 | Google Scholar | LinkedIn

10 years of teaching and academic experience AI | Machine Learning | Healthcare AI | Networks

Professional Profile

Assistant Professor in Computer Science and Engineering with 10 years of teaching and academic experience across core and specialized areas of computing. Research interests include Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Medical Image Processing, and Healthcare AI, with a focus on lung cancer detection and classification using CT images. Experienced in teaching undergraduate computing subjects, academic coordination, practical/laboratory development, student mentoring, and interdisciplinary research.

Academic Appointment

Assistant Professor, Department of Computer Science and EngineeringIILM University Greater Noida, India January 2026 – Present

- Teaching and course coordination, including Data Mining and Warehousing, Theory of Computation, and Image Processing.
- Developing lecture plans, practicals, laboratory resources, question banks, and student mentoring activities.
- Faculty Coordinator, Smart India Hackathon 2026 Internal Finale.

Previous academic appointments: Sharda University (2024–2025); G.L. Bajaj Institute of Technology and Management (2023–2024); Galgotias University (2019–2023); Harlal Institute of Management and Technology (2016–2017); S.S.D. Women Institute of Technology (2015–2016).

Teaching Portfolio

Core Computer Science: Programming Fundamentals, Programming in Python, Operating Systems, Computer Architecture and Organization, Theory of Computation, Data Mining and Data Warehousing.

Specialized and Advanced: Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Image Processing, Medical Image Analysis, Computer Vision, and Healthcare AI.

Education

Ph.D. in Computer Science and Engineering, Galgotias University Thesis submitted, September 2026; degree award pending. Thesis: *A Novel Methodology of Early Lung Cancer Prediction Using Soft Computing.*

M.Tech., Computer Science and Engineering, RC-GNDU, Jalandhar, 2015 (CGPA 8.50) **B.Tech., Computer Science and Engineering**, Doaba Group of Institutions, 2013 (77%) **Diploma, Computer Science**, S.R.S. Government Polytechnic for Women, 2010 (69.8%)

Research Focus and Methods

- Hybrid deep-learning models for CT-based lung cancer classification using EfficientNetV2-S, CBAM attention, and Transformer encoders.
- Soft-computing and machine-learning frameworks using GLCM texture features and optimization-assisted feature selection.
- Medical-image preprocessing and learning strategies including CLAHE, wavelet denoising, normalization, augmentation, and imbalance handling.
- Explainable, robust, and trustworthy AI for healthcare and medical decision support.

Selected Publications

- Vij, A., Kaswan, K. S., & Nayyar, A. (2026). Hybrid CNN-based Transformer pipeline with radiomic fusion for multi-class lung cancer detection. *Journal of Computer Science*, 22(6), 1785–1796. DOI: 10.3844/jcssp.2026.1785.1796.
- Vij, A., Kaswan, K. S., & Nayyar, A. (2026). Machine learning advancements for lung cancer detection: An in-depth review and future prospects. *Journal of Computer Science*, 22(1), 260–272. DOI: 10.3844/jcssp.2026.260.272.
- Vij, A., Gaba, P., & Vij, S. (2026). Bridging fiber optic and free-space optical communication: A comparative study and hybrid framework using artificial intelligence. IEEE I3CTCON 2026. DOI: 10.1109/I3CTCON68242.2026.11507287.
- Vij, A., et al. (2025). An enhanced CT-based lung cancer classification framework using a hybrid EfficientNetV2, CBAM, and Transformer architecture. IEEE ACET 2025. DOI: 10.1109/ACET67282.2025.11430402.
- Vij, A., Kaswan, K. S., & Nayyar, A. (2025). Multilevel optimization with hybrid stack model for lung cancer classification. *Journal of Information Systems Engineering and Management*, 10(28s), 993–1019. DOI: 10.52783/jisem.v10i28s.4762.
- Vij, A., & Kaswan, K. S. (2023). Prediction of lung cancer using convolution neural networks. IEEE AISC 2023, 737–741. DOI: 10.1109/AISC56616.2023.10085058.

Academic Leadership, Memberships and Development

- Faculty Coordinator, Smart India Hackathon 2026 Internal Finale; Course Coordinator, Data Mining and Warehousing.
- Member: IEEE, IEEE Women in Engineering, ACM, CSTA, IAENG, and IFERP
- 40-hour Agentic AI FDP (2026); Deep Learning and Computer Vision FDP (2026); Qualcomm AI Upskilling; Databricks Generative AI badges.
- Research and academic service including conference reviewing, technical programme committee activities, and institutional coordination.

Research Profiles

Google Scholar: Aanchal Vij ORCID: 0000-0002-7940-0650 LinkedIn: Aanchal Vij ResearchID: Aanchal Vij