



Title	Dr.	First Name	Ankit	Last Name	Rajpal	
Designation		Associate Professor				
Address		Cluster Innovation Centre University Stadium University of Delhi, Delhi-110007				
Phone No	Office					
	Residence					
	Mobile	9911103974				
Email	arajpal@cic.du.ac.in ankit.cs.du@gmail.com					
Web-Page	http://people.du.ac.in/~arajpal/					
Educational Qualifications						
Degree		Institution			Year	
Ph.D. Computer Science		Department of Computer Science, University of Delhi			2019	
M.Sc. Computer Science		Department of Computer Science, University of Delhi			2009	
B.Sc. (Hons.) Comp. Sc.		Deen Dayal Upadhyaya College, University of Delhi			2007	
Career Profile						
Institution		University		Period		Position Held
Cluster Innovation Centre		University of Delhi		Mar 2026 - Present		Associate Professor (Regular)
Department of Computer Science		University of Delhi		Nov 2020 – Mar 2026		Assistant Professor (Regular-on lien)
Deen Dayal Upadhyaya College		University of Delhi		July 2013 – Nov 2020 July 2011 - Nov 2012		Assistant Professor (Ad-hoc)
Royal Thimphu College		Royal University of Bhutan		July 2009 - July 2011		Associate Lecturer (Regular)
Administrative Assignments						
Faculty Advisor:						
- Delhi University Computer Science Society (2020-2024) - GoogleCloudReady Facilitator program (2022) - DDUC CodeChef Chapter (2016-2020).						

Member of the following committees:

- Academic Panel, Academic Affairs, University of Delhi (July 2024 – Present)
- Examination Disciplinary Committee, University of Delhi (June 2024 – Present)
- Annual Report Editorial Committee, University of Delhi (2022-2025)
- NEP Implementation and Monitoring Committee, University of Delhi (March 2023-Present)
- ECA Admission Committee, University of Delhi. (2023)
- Committee of Courses, Faculty of Mathematical Sciences (Jan 2021-Present)
- Department Research Committee (Nov 2021-Present)
- Moderation Committee (Nov 2020-Present)
- Examination Committee (2021)
- Admission Committee (2020-21)
- Purchase Committee (2021-2023)
- Data consolidation for SSR for NAAC
- India Today Ranking Committee (DDUC)
- Prospectus cum Handbook committee, DDUC
- Student activity board at DDUC.

Assisted the Organizing Chair in organizing:

- Coordinator, Faculty Development Programme titled "Teaching Pedagogy and Research in the NEP 2020 Framework: Leveraging Artificial Intelligence" organized by Department of Computer Science, Sri Guru Gobind Singh College of Commerce, University of Delhi, in collaboration with the Department of Computer Science, University of Delhi and Ramanujan College under the aegis of Malaviya Mission Teacher Training Centre during 13-24 March 2026.
- Convener, Short-Term Certificate Course on Cyber Security held on 17, 20-21 July 2024, organised under the joint auspices of CYBERX, DPS, R.K. Puram and Deen Dayal Upadhyaya College, University of Delhi.
- Member, Organizing Committee, Two-day workshop on "Mathematical Sciences for Viksit Bharat@2047" organised by Faculty of Mathematical Sciences, University of Delhi.
- Member, Publicity Chair, "ACM Compute 2021", 14th Annual Conference held 18-20 November 2021.
- "Workshop on Alexa Lab" held under Industry-Academia Interaction on 25 January 2020 at Deen Dayal Upadhyaya College, University of Delhi, as Teacher Coordinator.
- Workshop on Natural Language Processing held on 13-14 February 2019 at DDUC.
- A seminar on "Nurturing Young Graduates on Industry Readiness" on 31 August 2018, in collaboration with the ICT Academy.
- 100-hour Add-on Course on "Online Retailing: An Industry Orientation for Undergraduate Students" held from 01 June - 23 June 2018 under the aegis of IQAC-DDUC.
- UGC Sponsored National Seminar on "A trend towards Machine Learning: Techniques and Applications" at Deen Dayal Upadhyaya College on 26 December 2017 – 1 January 2018.
- Two-day workshop on "Internet of Things" during 6-7 March 2017 at Deen Dayal Upadhyaya College under Sanganka- the computer Science Society of the College.
- UGC Sponsored National Seminar on "**A Step towards Soft Computing Techniques and Applications**" at Deen Dayal Upadhyaya College on 18-19 March 2016 in the capacity of as a Program Committee Member.

Areas of Interest / Specialization

Medical Imaging, Computational Biology, Explainable Machine Learning, Digital Watermarking

Subjects Taught
Jan 2026 – Present: DSE 206: Data Mining, RCS 102: Research Publication Ethics Aug 2025 – Dec 2025: DSC 102: Machine Learning, MCAE 301: Compiler Design Jan 2025 – June 2025: MCAC 204: Artificial Intelligence and Machine Learning Aug 2024 – Dec 2024: MCAC 104: Database Systems, MCAE 309: Automata Theory Jan 2024 – June 2024: MCSC 201: Machine Learning Sep 2023 – Jan 2024: MCAC 104: Database Systems, MCAE 301: Compiler Design Apr 2023 – Aug 2023: MCAC 202: Data Communications and Computer Networks Jan 2023 - May 2023: MCAC 401: Compiler Design Dec 2022- Apr 2023: MCSC 105: Data Mining Aug 2022 - Dec 2022: MCAC 303: Automata Theory Apr 2022 - Jul 2022: MCAC 204: Data Communications and Computer Networks Jan 2022 - Apr 2022: MCAC 401: Compiler Design Dec 2021 - Mar 2022: MCSC 105: Data Mining Aug 2021 - Dec 2021: MCAC 303: Automata Theory Apr 2021 - Aug 2021: MCSE203: Compiler Design Apr 2021 - July 2021: RCS 002: Foundation of Computer Science Jan 2021 - May 2021: MCAC 401: Compiler Design Dec 2020 - Mar 2021: MCSC 105 Data Mining Aug 2020 - Nov 2020: Theory of Computation, System Programming, Data Analysis using Python Jan 2020 - May 2020: Artificial Intelligence, Database Management Systems July 2019 - Nov 2019: Theory of Computation, System Programming, Office Automation Tools Jan 2019 - May 2019: Artificial Intelligence, Database Management Systems July 2018 - Nov 2018: Theory of Computation, Operating Systems, Office Automation Tools Jan 2018 - May 2018: Artificial Intelligence, Database Management Systems July 2017 - Nov 2017: Theory of Computation, Operating Systems, Office Automation Tools Jan 2017 - May 2017: Artificial Intelligence July 2016 - Nov 2016: Theory of Computation, Operating Systems Jan 2016 - May 2016: Operating Systems July 2015 - Nov 2015: Systems Programming Jan 2015 - May 2015: Information Security, Computational Skills July 2014 - Nov 2014: Theory of Computation, Programming Fundamentals using C++, Computational Skills Jan 2014 - May 2014: Artificial Intelligence July 2013 - Nov 2013: Theory of Computation, Information Technology, Computer System Architecture July 2012 - Nov 2012: Systems Programming, Discrete Structures Jan 2012 - May 2012: Programming Paradigms, Computer Graphics, Computational Skills July 2011 - Nov 2011: Discrete Mathematics, System Software Feb 2011 - June 2011: System Analysis and Design, Database Design, Algorithm Analysis July 2010 - Nov 2010: Programming Principles using C, IT Communication Skills Feb 2010 - June 2010: Discrete Mathematics, Introduction to Computers, Internet Technology June 2009 - Nov 2009: Calculus I and Numerical Analysis, IT Communication Skills
Research Guidance
Submitted (1) March 2026, Rashika Bagri, Deep Learning Frameworks for Tumour Grading with Nuclei Segmentation and Subtyping of Renal Cell Carcinoma using Histopathology Imaging Awarded (1)

- 2024, Kountay Dwivedi, An Explainable AI-driven Approach to Non-Small Cell Lung Cancer Biomarkers Discovery (jointly with Prof. Naveen Kumar)

Pursuing (3)

- Pooja Rana (Joining Date: 15 December 2025)
- Bhomic Kaushik (jointly with Prof. Naveen Kumar) (Joining Date: 23 October 2023)
- Madhu Kashania (Joining Date: 15 February 2023)

Research Projects Guidance

- Mentored a M.Sc. Research Project titled: XAI-Driven Counterfactual Minority Oversampling for Software Change Proneness Prediction in the year 2024-25.
- Mentored a M.Sc. Research Project titled: CX-Net: Complex Cross-attention Network for MRI Reconstruction in the year 2024-25.
- Mentored a M.Sc. Research Project titled: Attention-guided Robust Watermarking Using Gans: Implementation, Evaluation, and Improvements in the year 2024-25.
- Mentored a M.Sc. Research Project titled: A Comprehensive Comparison of Deep Convolutional Networks and Transformers for Leaf Disease Identification in the year 2024-25.
- Mentored a M.Sc. Research Project titled “Semi-blind watermarking of grayscale and colored Images” in the year 2023-24.
- Mentored a M.Sc. Research Project titled “Adaptive Basal-Glucagon Advisor for Type 1 Diabetes Management Using Deep Q Learning” in the year 2023-24.
- Mentored a M.Sc. Research Project titled “Fast and Precise Automated Road-area Segmentation in Images using Deep Neural Networks” in the year 2023-24.
- Mentored a M.Sc. Research Project titled “Autoencoder-Based Feature Extraction for Software Change Proneness Prediction” in year 2023-24.
- Mentored a M.Sc. Research Project titled “Multiple embedding strength optimization based semi-blind watermarking using bio-inspired algorithms” in year 2022-23.
- Mentored a M.Sc. Research Project titled “Lung cancer detection on whole-slide tissue images using patch-based weakly-supervised learning” in year 2022-23.
- Mentored a M.Sc. Research Project titled “Digital Image Watermarking” in year 2022-23.
- Mentored a M.Sc. Research Project titled “Leaf Disease Detection using Machine Learning Techniques” in year 2022-23.
- Mentored a M.Sc. Research Project titled “Fake News Detection” in year 2022-23.
- Mentored a M.Sc. Research Project titled “Leaf Disease Detection” in year 2021-22.
- Mentored a M.Sc. Research Project titled “Fake News Detection” in year 2021-22.
- Mentored a M.Sc. Research Project titled “COVID-19 Detection Using Chest X-Rays” in year 2021-22.
- Mentored a M.Sc. Research Project titled “Face Mask Detection” in year 2021-22.
- Mentored a M.Sc. Research Project titled “Face Recognition using Deep Neural Networks” during Jan-June 2021
- Mentored a M.Sc. Research Project titled “ECG Signal watermarking in DWT domain using ELM” in year 2018-19.

Publications Profile

Journal Publications

- Rashika Bagri, **Ankit Rajpal** (2026). "CMA-MIL: A cross-magnification attention-based multiple instance learning framework for renal cell carcinoma subtyping using whole-slide images." Computers and Electrical Engineering, 135, 111204. (Impact Factor: 4.9, SCIE (Q1)) <https://doi.org/10.1016/j.compeleceng.2026.111204>.

- Namit Arora, Gorseet Paul Singh, Bhomic Kaushik, Sheetal Rajpal, Virendra Kumar and **Ankit Rajpal** (2026). "Dual Hormone Controller for Type 1 Diabetes based on Dueling Deep Q-Network and Insulin Action Replay." *International Journal of Machine Learning and Cybernetics* (Impact Factor: 2.7, SCIE (Q2)) <https://doi.org/10.1007/s13042-026-03079-4>
- Bhomic Kaushik, **Ankit Rajpal**, Naveen Kumar (2026). "QEFS: Quantum evolutionary feature selector for a real quantum computer." *Applied Soft Computing*, 194, 114965 (Impact Factor: 6.6, SCIE (Q1)) <https://doi.org/10.1016/j.asoc.2026.114965>
- Madhu Kashania, **Ankit Rajpal**, Aman Gaur (2026). "FSSCAN: Frequency–Spatial Skip Connection Attention Network for Complex-Valued MRI Reconstruction." *Biomedical Signal Processing and Control*, 117 (Part-A), 109923 <https://doi.org/10.1016/j.bspc.2026.109923>
- Rashika Bagri, **Ankit Rajpal** (2026). "A novel approach for grading renal cell carcinoma using wavelet-aided nuclei segmentation and handcrafted morphological features." *Biomedical Signal Processing and Control*, 113, 108878. <https://doi.org/10.1016/j.bspc.2025.108878>
- **Ankit Rajpal**, Megha Khanna, Naman Singhal. "Explainable-AI-assisted feature selection for software change-proneness prediction." *Soft Computing* (2025). <https://doi.org/10.1007/s00500-025-10751-4>
- Rashika Bagri, **Ankit Rajpal**, Naveen Kumar. "A Novel Lightweight Deep Attention Network for Automated Nuclei Segmentation in Histopathology Images." *Neurocomputing* (2025): Vol 649, 130797, <https://doi.org/10.1016/j.neucom.2025.130797>
- Rashika Bagri, **Ankit Rajpal**. "Explaining Fuhrman Grading using Deep Convolutional-Driven Features of Renal Cell Carcinoma." *Procedia Computer Science* (2025): Vol 258, 2140–2149, <https://doi.org/10.1016/j.procs.2025.04.464>
- Gaurav Pandey, Rashika Bagri, Rajan Gupta, **Ankit Rajpal**, Manoj Agarwal, Naveen Kumar. "Robust Weighted General Performance Score for Various Classification Scenarios." *Intelligent Decision Technologies* (2024). (Impact Factor: 0.6, SCIE(Q4)) <https://doi.org/10.3233/IDT-240465>
- **Ankit Rajpal**, Rashmi Mishra, Sheetal Rajpal, Kavita, Varnika Bhatia, Naveen Kumar. "Explaining Deep Learning-Based Leaf Disease Identification." *Soft Computing* (2024). (Impact Factor: 3.1, SCIE (Q2)) <https://doi.org/10.1007/s00500-024-09939-x>
- Kountay Dwivedi, Anshuman Gupta, **Ankit Rajpal**, Naveen Kumar. (2024). Deep learning-based NSCLC classification from whole-slide images: Leveraging expectation-maximization and InceptionV3. *Procedia Computer Science*, 235, 2422–2433. DOI: <https://doi.org/10.1016/j.procs.2024.04.229>
- Kountay Dwivedi, **Ankit Rajpal**, Sheetal Rajpal, Virendra Kumar, Manoj Agarwal, Naveen Kumar. "XL1R-Net: Explainable AI-driven Improved L1-Regularized Deep Neural Architecture for NSCLC Biomarker Identification." *Computational Biology and*

Chemistry (2024): Vol 108, 107990. (Impact Factor: 2.6, SCIE(Q2)) DOI: <https://doi.org/10.1016/j.compbiolchem.2023.107990>

- Kountay Dwivedi, **Ankit Rajpal**, Sheetal Rajpal, Virendra Kumar, Manoj Agarwal, Naveen Kumar. "Enlightening the Path to NSCLC Biomarkers: Utilizing the Power of XAI-guided Deep Learning." *Computer Methods and Programs in Biomedicine* (2024): Vol. 243, 107864. (Impact Factor: 4.9, SCIE(Q1)) DOI: <https://doi.org/10.1016/j.cmpb.2023.107864>
- **Ankit Rajpal**, Subodh Kumar, Neeraj Kumar Sharma, Ajith Abraham, Anurag Mishra, Naveen Kumar. "CXRmark: A Watermarking Scheme for Chest X-Rays using Online Sequential Reduced Kernel ELM." *Circuits, Systems and Signal Processing* (2023), (Impact Factor: 1.8, SCIE (Q3)), DOI: <https://doi.org/10.1007/s00034-023-02491-3>
- Vanshika Dua, **Ankit Rajpal**, Sheetal Rajpal, Manoj Agarwal, Naveen Kumar. "I-FLASH: Interpretable Fake News Detector using LIME And SHAP." *Wireless Personal Communications* (2023), Vol. 131, 2841–2874. (Impact Factor: 1.9, SCIE (Q3)), DOI: <https://doi.org/10.1007/s11277-023-10582-2>
- Rashmi Mishra, Kavita, **Ankit Rajpal**, Varnika Bhatia, Sheetal Rajpal, Manoj Agarwal, Naveen Kumar. "I-LDD: an interpretable leaf disease detector." *Soft Computing* (2023): 1-17. (Impact Factor: 3.1, SCIE (Q2)), DOI: <https://doi.org/10.1007/s00500-023-08512-2>
- Sheetal Rajpal, **Ankit Rajpal**, Manoj Agarwal, Virendra Kumar, Ajith Abraham, Divya Khanna, Naveen Kumar. "XAI-CNVMarker: Explainable AI-based Copy Number Variant Biomarker Discovery for Breast Cancer Subtypes." *Biomedical Signal Processing and Control* (2023): Vol. 84, 104979. (Impact Factor: 4.9, SCIE (Q1)), DOI: <https://doi.org/10.1016/j.bspc.2023.104979>
- Sheetal Rajpal, **Ankit Rajpal**, Arpita Saggat, Ashok K. Vaid, Virendra Kumar, Manoj Agarwal, Naveen Kumar. "XAI-MethylMarker: Explainable AI Approach for Biomarker Discovery for Breast Cancer Subtype Classification using Methylation Data." *Expert Systems with Applications* (2023): Vol. 225, 120130. (Impact Factor: 7.5, SCIE (Q1)), DOI: <https://doi.org/10.1016/j.eswa.2023.120130>
- Kountay Dwivedi, **Ankit Rajpal**, Sheetal Rajpal, Manoj Agarwal, Virendra Kumar, and Naveen Kumar. "An explainable AI-driven biomarker discovery framework for Non-Small Cell Lung Cancer classification." *Computers in Biology and Medicine* (2023): Vol. 153, 106544. (Impact Factor: 7, SCIE (Q1)), DOI: <https://doi.org/10.1016/j.compbiomed.2023.106544>
- **Ankit Rajpal**, Khushwant Sehra, Rashika Bagri, and Pooja Sikka. "XAI-FR: Explainable AI-Based Face Recognition Using Deep Neural Networks." *Wireless Personal Communications* 129, no. 1 (2023): 663-680. (Impact Factor: 1.9, SCIE (Q3)), DOI: <https://doi.org/10.1007/s11277-022-10127-z>
- **Ankit Rajpal**, Khushwant Sehra, Anurag Mishra, and Girija Chetty. "A low-resolution real-time face recognition using extreme learning machine and its variants." *The Imaging Science Journal* (2023): 1-16. (Impact Factor: 1.1, SCIE (Q4)), DOI: [10.1080/13682199.2023.2183544](https://doi.org/10.1080/13682199.2023.2183544)

19-6406-0 25

- Shweta Wadhera, Deepa Kamra, **Ankit Rajpal**, Aruna Jain, & Vishal Jain (2021). "A Comprehensive Review on Digital Image Watermarking." In *WCNC-2021: Workshop on Computer Networks & Communications* (pp. 126-143). CEUR Workshop Proceedings (CEUR-WS.org), **Link:** http://ceur-ws.org/Vol-2889/PAPER_14.pdf
- Khushwant Sehra, **Ankit Rajpal**, Anurag Mishra, & Girija Chetty (2019). "HOG Based Facial Recognition Approach Using Viola Jones Algorithm and Extreme Learning Machine." In *International Conference on Computational Science and Its Applications* (pp. 423-435). Springer, Cham., **DOI:** https://doi.org/10.1007/978-3-030-24308-1_35
- **Ankit Rajpal**, Anurag Mishra, and Rajni Bala. "Fast digital watermarking of uncompressed colored images using bidirectional extreme learning machine" In *International Joint Conference on Neural Networks (IJCNN)*, pp. 1361-1366. IEEE, 2017. **DOI:** [10.1109/IJCNN.2017.7966011](https://doi.org/10.1109/IJCNN.2017.7966011)
- Anurag Mishra, **Ankit Rajpal**, and Rajni Bala. "Fast semi-blind color image watermarking scheme using DWT and extreme learning machine." In *International Conference on Computational Science and its Applications*, pp. 63-78. Springer, Cham, 2017. **DOI:** https://doi.org/10.1007/978-3-319-62407-5_5
- **Ankit Rajpal**, Anurag Mishra, and Rajni Bala. "Extreme learning machine for semi-blind grayscale image watermarking in DWT domain." In *International Symposium on Security in Computing and Communication*, pp. 305-317. Springer Singapore, 2016. **DOI:** https://doi.org/10.1007/978-981-10-2738-3_26
- **Ankit Rajpal**, Anurag Mishra, and Rajni Bala. "Multiple scaling factors based semi-blind watermarking of grayscale images using OS-ELM neural network" In *International Conference on Signal Processing, Communications and Computing (ICSPCC)*, pp. 1-6. IEEE, 2016. **DOI:** [10.1109/ICSPCC.2016.7753622](https://doi.org/10.1109/ICSPCC.2016.7753622)
- **Ankit Rajpal**, Anurag Mishra, and Rajni Bala. "Robust blind watermarking technique for color images using online sequential extreme learning machine." In *International Conference Computing, Communication and Security (ICCCS)*, pp. 1-7. IEEE, 2015. **DOI:** [10.1109/CCCS.2015.7374127](https://doi.org/10.1109/CCCS.2015.7374127)

Books Authored

- Co-authored books aligned with the CBSE-prescribed syllabus on computer science and informatics practices.
 - "Computer Science with Python (Focus on Modularity & Documentation) for CBSE– Class 11"
 - "Computer Science with Python (Focus on Documentation) for CBSE– Class 11"
 - "Computer Science with Python (Focus on Modularity & Documentation) for CBSE– Class 12"
 - Information Practices with Python for Class 11
 - Information Practices with Python for Class 12

Conference Organization/ Presentations

- Presented a paper titled "Exploring deep learning approaches for classification of leaf diseases in Brassica Juncea" at 8th Biennial International Conference on "Frontiers in AI: Shaping the future of Management" at SGGSCC College, University of Delhi on 10 April 2026.
- Presented a paper titled "An Automated Approach for Enhancing Aging-Related Bug Prediction using XAI-Driven Feature Selection" at the 6th International Conference on Data Analytics and

Management (ICDAM-2025) organized London Metropolitan University, London, United Kingdom in association with the WSG University, Bydgoszcz, Poland; Portalegre Polytechnic University, Portugal & SGGW Management Institute, Poland, Europe held between 13 June- 15 June 2024 in London, United Kingdom.

- Presented a paper titled "Revealing the Unseen: Explainable AI-Driven Masked Face Recognition" at the International Joint Conference on Neural Networks organized under IEEE World Congress on Computational Intelligence held between 30 June- 05 July 2024 in Yokohama, Japan.
- Presented a paper titled "Fast digital watermarking of uncompressed colored images using bidirectional extreme learning machine" at the International Joint Conference on Neural Networks organized under IEEE World Congress on Computational Intelligence held between 14-19 May 2017 in Alaska, USA
- Presented a paper titled " Extreme learning machine for semi-blind grayscale image watermarking in DWT domain" at the International Symposium on Security in Computing and Communication held between 21-24 September 2016 in Jaipur.
- Presented a paper titled "Multiple scaling factors based semi-blind watermarking of grayscale images using OS-ELM neural network" at the International Conference on Signal Processing, Communications and Computing (ICSPCC) held between 05-08 August 2016 in Hong Kong.

Research Projects (Major Grants/Research Collaboration)

Complex-Valued Deep Cascaded Network for Accelerated MRI

- Project Duration: 1 year
- Funding Agency: Faculty Research Programme Grant - IoE, University of Delhi
- Role: Principal Investigator
- Year: 2024-25
- Sanctioned Amount: 5 Lakhs
- Status: Ongoing

Enhancing Interpretability in Leaf Disease Detection: Evaluating Segmentation Algorithms with LIME

- Project Duration: 1 year
- Funding Agency: Faculty Research Programme Grant - IoE, University of Delhi
- Role: Principal Investigator
- Year: 2023-24
- Sanctioned Amount: 4 Lakhs
- Status: Completed

Interpretable Image-based Leaf Disease Detection

- Project Duration: 1 year
- Funding Agency: Faculty Research Programme Grant - IoE, University of Delhi
- Role: Principal Investigator
- Year: 2022-23
- Sanctioned Amount: 3 Lakhs
- Status: Completed

Interpretable Models for Omic-based Lung Cancer Classification

- Project Duration: 1 year
- Funding Agency: Faculty Research Programme Grant - IoE, University of Delhi
- Role: Principal Investigator
- Year: 2021-22
- Sanctioned Amount: 1.75 Lakhs
- Status: Completed

Awards and Distinctions

Research Publication Award

A research grant based on CiteScore rankings from Scopus for publications in Q1 journals:

- Rs. 500,000 grant for research published in the topmost Q1 journal (highest-ranked within Q1) in 2026.
- Rs. 100,000 grant for research published in Q1 journals ranked within the 11-20% range of the CiteScore rankings in 2026.
- Rs. 500,000 grant for research published in the topmost Q1 journal (highest-ranked within Q1) in 2024.
- Rs. 100,000 grant for research published in Q1 journals ranked within the 11-20% range of the CiteScore rankings in 2024.

Patent

- Naveen Kumar, Rashmi Mishra, **Ankit Rajpal**, and Sheetal Rajpal. An interpretable leaf disease detection device (I-LDD). German Patent Office, assignee. 202024103925. 20 Aug. 2024.
- Manoj Agarwal, Naveen Kumar, Virendra Kumar, **Ankit Rajpal**, Sheetal Rajpal. Arpita Saggarr, and Ashok Kumar Vaid. An explainable artificial intelligence-based biomarker discovery system. German Patent Office, assignee. 202024100861. 18 Apr. 2024.
- **Ankit Rajpal**, Anurag Mishra, and Rajni Bala. [System and method for watermarking MPEG-4 Advanced Video Coding \(AVC\) videos.](#) Indian Patent Office, assignee. Patent 346917. 16 Sept. 2020.

Participation as a Resource Person

- Moderator in panel discussion on “Policy Expectations: Boosting Health and Wellness among College Students” as part of a recent assessment by the Institute of Economic Growth (IEG), Delhi, on "Health, Nutrition and Lifestyle among College Students" held at the India International Center on April 30, 2026.
- Guest of Honor in a one-day International Conference on “Commerce and Culture in the Digital Era: Navigating Challenges and Opportunities” held at Sri Guru Nanak Dev Khalsa College, University of Delhi, on 27 April 2026.
- Panelist in one-day conference on “AI and the Education System for Viksit Bharat: Preparing for the Next Wave” being organized by the Institute for Governance, Policies & Politics (IGPP) in collaboration with Aryabhatta College, University of Delhi on 21 April 2026.
- Delivered a session titled "Explainable AI in Research" in an online Faculty Development Programme titled "Teaching Pedagogy and Research in the NEP 2020 Framework: Leveraging Artificial Intelligence" organized by Department of Computer Science, Sri Guru Gobind Singh College of Commerce, University of Delhi, in collaboration with the Department of Computer

Science, University of Delhi and Ramanujan College under the aegis of Malaviya Mission Teacher Training Centre during 13-24 March 2026.

- Delivered a session titled "Code to Care: AI-driven Predictive Intelligence in Healthcare Systems" at Vivekananda School of Information Technology (VIPS) on 12 March 2026.
- Delivered a talk titled "AI and Prompt Engineering" in 1st International Conference (Hybrid Mode) From Soft Skills to Real Skills: Rebuilding Educational Futures in the AI Era on 08 March 2026, held at Ambikapur, Chhattisgarh, India.
- Expert Speaker at the Roundtable on AI for All: India's Policy Architecture for Public-Interest AI and Inclusive Development" at India AI Impact Summit 2026 held on 16 February 2026 at Bharat Mandapam.
- Delivered a talk titled "Explainable AI in Healthcare" at the Daulat Ram College, University of Delhi on 29 January 2026.
- Served as a jury at the International Research Symposium on the Theme "Artificial Intelligence and its Societal Impact" at the Maitreyi College, University of Delhi on 28 January 2026.
- Delivered a talk titled "Explaining AI Decisions in Healthcare" at the 13th Workshop on Bioinformatics and Drug Design: Artificial Intelligence & Machine Learning-based Methods (BIF-DD-2026) on 16 January 2026.
- Delivered a lecture in Two-day International Seminar on "Bridging Tradition and Technology: AI Perspectives through the Lens of Indian Knowledge System" at Sandipani Academy, Achhoti, Durg, (C.G.), Pragati College, Raipur (C.G.) & Veetranga Research Foundation, Raipur(C.G.) held during 09-10 January 2026.
- Delivered a lecture titled "Deep Dive into Deep Neural Networks" in One-week Atal Faculty Development Programme on "Cutting-edge AI Techniques for Teaching and Research" at Guru Nanak Institute of Management held during 10-15 November 2025.
- Delivered an inaugural lecture in a 40-hour Add-on course on "Artificial Intelligence and Prompt Engineering" on 14th October 2025, organized at Kamla Nehru College, University of Delhi in collaboration with Samarth Bharat.
- Delivered a session on the topic "Research Unlocked: A Guide to Modalities, Ethics, and Intellectual Property" in Sri Guru Gobind Singh College of Commerce, University of Delhi on October 13, 2025
- Delivered a talk on the topic "Basics of Python", in Skill Development Certificate Course on "Data Handling using Software Packages: From Analysis to Visualisation" in Zakir Hussain College, University of Delhi on September 28, 2025
- Delivered a session on Python programming in a Workshop on Bioinformatics and Molecular Modeling in Drug Design held during October 13-15, 2025 Organised by Bioinformatics Center (BIC) -DBT sponsored ACBR, University of Delhi Under the aegis of Anusandhan National Research Foundation - Partnerships for Accelerated Innovation and Research (ANRF-PAIR)
- Delivered a lecture titled "The Building Blocks of Intelligence: A Deep Dive into Neural Networks" Shaheed Sukhdev College of Business Studies, University of Delhi, on 08 April 2025.
- Presented a paper titled "An Automated Approach for Enhancing Aging-Related Bug Prediction using XAI-Driven Feature Selection" at the 6th International Conference on Data Analytics and Management (ICDAM-2025) organized London Metropolitan University, London, United Kingdom in association with the WSG University, Bydgoszcz, Poland; Portalegre Polytechnic University, Portugal & SGGW Management Institute, Poland, Europe held between 13 June- 15 June 2024 in London, United Kingdom.
- Speaker in Plenary Session 7th Biennial International Convention on "AI and Viksit Bharat: Harnessing the Tech Tailwinds for Aspirational India "Artificial Intelligence and Prompt Engineering" on 27th March 2025 held at India International Centre, Lodhi Road, New Delhi

organized by Sri Guru Gobind Singh College of Commerce, University of Delhi.

- Delivered an inaugural lecture in a 40-hour Add-on course on “Artificial Intelligence and Prompt Engineering” on 17th February 2025, organized at Hansraj College, University of Delhi in collaboration with Samarth Bharat.
- Delivered an inaugural lecture in a 40-hour Add-on course on “Artificial Intelligence and Prompt Engineering” on 08th February 2025, organized at Deshbandhu College, University of Delhi in collaboration with Samarth Bharat.
- Delivered two sessions in three-day workshop on “Decoding Data: Data Analysis using Python” on 30th January 2025.
- Delivered a session titled “Prompt Engineering in Academia” in one-week FDP on “Reinventing Pedagogy in the Age of AI: Methods, Approaches and Perspectives” on 19th January 2025.
- Delivered a session titled “Prompt Engineering” on 26th December 2024 in Two Weeks (Online) Interdisciplinary Refresher Course on “ICT in Academics and Research” organized by Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College.
- Delivered a talk titled “Machine Learning Applications in Omics Data Analysis and Histopathological Image Processing” at the 12th Workshop on Bioinformatics and Drug Design: Artificial Intelligence & Machine Learning-based Methods (BIF-DD-2024) on 19th December 2024.
- Contributed as a Judge to evaluate Robotics event in 'Geek-A-Hertz 2024' – An Annual International Computer Technical-Festival held at St. Mark’s Sr. Secondary Public School on 10 December 2024.
- Delivered a session titled “Cryptographic Algorithms in Cyber Security” in a short-term certificate course on 'Cyber Security' organised by CYBERX, Delhi Public School, R. K. Puram in collaboration with Deen Dayal Upadhyaya College, University of Delhi on July 17, 2024.
- Presented a paper titled "Revealing the Unseen: Explainable AI-Driven Masked Face Recognition" at the International Joint Conference on Neural Networks organized under IEEE World Congress on Computational Intelligence held between 30 June- 05 July 2024 in Yokohama, Japan.
- Delivered two sessions in a hands-on workshop on “Data Analysis and Visualisation using Python” organized by the Department of Computer Science at Mata Sundri College for Women, University of Delhi, on 23 February 2024.
- Contributed as a Judge in Round 2 Dark Patterns Buster Hackathon held in Hansraj College, University of Delhi on 31 January 2024.
- Contributed as a Judge to evaluate Robotics event in 'Geek-A-Hertz 2023' – An Annual International Computer Technical-Festival held at St. Mark’s Sr. Secondary Public School on 30 November 2023.
- Delivered two sessions in a three-day Faculty development programme on “Python in Finance” organized by IQAC, Bharati College, University of Delhi held during 23-25 November 2023.
- Contributed as a subject expert/jury member to evaluate research projects in Avlokan 2023 organized by Centre of Research, Maitreyi College, University of Delhi, India on 03 November 2023.
- Delivered multiple sessions in 30-hour Add-on course on “Fundamentals of Python” organized by Centre for Professional Development at Sri Guru Gobind College of Commerce held during 22 August 2023 - 25 September 2023.
- Delivered a talk in three weeks technical training programme: Attachment of DANICS Probationers (59th Batch) with Delhi Technological University organized by Human Resource Development Centre (HRDC) in association with Directorate of Training (Union Territories

Civil services), Govt. of NCT of Delhi from 11th- 29th September 2023.

- Delivered a lecture at Faculty Development Program on "MATLAB & its Applications in AI & ML" organized by Sridev Suman Uttarakhand University, Rishikesh held during August 16-21, 2023.
- Delivered a Tutorial on "Explaining Machine Learning Decisions" at International Conference on Neural Networks (IJCNN) held in Queensland, Australia during 18-23 June 2023.
- Delivered a training programme on "Programming using Python: SQL connectivity using Python, Exception handling, Numpy and Visualization" during three-day capacity building programme for computer science teachers organized by DAV Centre for Academic Excellence, DAV College Managing Committee from 02-04 May 2023.
- Delivered three sessions as a resource person in a two-week FDP Computer Algebra Systems organized by Mahatma Hansraj Faculty Development Centre, Hans Raj College, University of Delhi in collaboration with IQAC, Ramjas College during 22 March-03 April 2023.
- Delivered two sessions on "Data Handling using Python" in a two-week online FDP organized by Department of CSE, School of Computing Department of EEE, School of Electrical Engineering Bharath Institute of Higher Education and Research, Chennai in association with National Institute of Technology, Warangal on 5-6 August 2022.
- Delivered two sessions as a resource person in a two-week FDP Python: Essentials, Programming and Analytics organized by University of Delhi in collaboration with Guru Angad Dev Teaching Learning Centre of the Ministry of Education (PMMMNMST scheme) during 27 Oct-03 Nov 2022.
- Contributed as a subject expert/jury member to evaluate research projects in Avlokan 2022 organized by Centre of Research, Maitreyi College, University of Delhi, India on 28 September 2022.
- Contributed as a Judge to evaluate innovative projects in 'Geek<A/>Hertz 2022' – An Annual International Computer Technical-Festival held at St. Mark's Sr. Secondary Public School on 23 November 2022.
- Resource Person, Computer Literacy Program using MS Office organized by Committee for Special Programs for Learners under the aegis of IQAC, Deen Dayal Upadhyaya College, University of Delhi on 29 November 2020.
- Workshop on Computer literacy program for Business Applications on 18 December 2019.
- Workshop on Python Programming held from 15-16 November 2019 at Bal Bharati Public School, Gangaram, Delhi.
- Workshop on Data Analytics Using Python held on 6-7 March 2019 at Deen Dayal Upadhyaya College.
- Workshop on Python: Programming and Applications held from 26-28 September 2018 at Deen Dayal Upadhyaya College.
- Workshop for Computer Teachers on Programming with Python at Bal Bharti Public School (BBPS) Training Centre, Pitam Pura, from 16-17 March 2018.
- Workshop on FOSS and Shell Programming held on 18th August 2017 at Deen Dayal Upadhyaya College.
- Presented a paper titled "Fast digital watermarking of uncompressed colored images using bidirectional extreme learning machine" at the International Joint Conference on Neural Networks organized under IEEE World Congress on Computational Intelligence held between 14-19 May 2017 in Alaska, USA.
- Workshop on Linux Foundation Training organized under the Science Foundation Committee at Deen Dayal Upadhyaya College from 29-30 March 2017.
- Presented a paper titled " Extreme learning machine for semi-blind grayscale image watermarking in DWT domain" at the International Symposium on Security in Computing

and Communication held between 21-24 September 2016 in Jaipur.

- Presented a paper titled "Multiple scaling factors based semi-blind watermarking of grayscale images using OS-ELM neural network" at the International Conference on Signal Processing, Communications and Computing (ICSPCC) held between 05-08 August 2016 in Hong Kong.
- Workshop on Python Programming for School Teachers, BBPS Training Centre during 8-9 September 2014.

Faculty Development Activities Attended

- Online Faculty Development Programme titled "Teaching Pedagogy and Research in the NEP 2020 Framework: Leveraging Artificial Intelligence" organized by Department of Computer Science, Sri Guru Gobind Singh College of Commerce, University of Delhi, in collaboration with the Department of Computer Science, University of Delhi and Ramanujan College under the aegis of Malaviya Mission Teacher Training Centre during 13-24 March 2026.
- One-week Nurturing Future Leadership program held at IIM, Jammu under the aegis of MMTTP during 16th December 2024 - 20th December 2024.
- One-week faculty development program (FDP) on Design Thinking and Innovation held from May 14, 2024, to May 21, 2024, organized by Udhmodya Foundation, Samarth Bharat, and Hansraj College in association with Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC) under PMMNMTT Scheme.
- Completed an online course on "Supervised Machine Learning: Regression and Classification" authorized by DeepLearning.AI and Stanford University and offered through Coursera from February 06, 2024 to February 25, 2024. E-certification: <https://coursera.org/verify/R5XYVGK99SP>
- Two-week Faculty Development program (FDP) on "Research Methodology and Data Analysis" held from 14 December 2023 - 28 December 2023 organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education PMMNMTT scheme.
- One-week Faculty Development Program (FDP) on "Research writing and Mathematical typesetting with LaTeX" held from 07 December 2023 - 13 December 2023 organized by Teaching Learning Centre, Ramanujan College, University of Delhi in Collaboration with Ram Lal Anand College, University of Delhi under the aegis of Ministry of Education PMMNMTT scheme.
- Three-day Faculty Development Program (FDP) on Cybersecurity, High Performance Computing, AI/ML and GenAI organized by Delhi University Computer Centre, University of Delhi held during October 4-6, 2023.
- One-week Faculty Development Program (FDP) on "Python with Data Analysis" held from 07 August 2023 - 13 August 2023 organized by Teaching Learning Centre, Ramanujan College under the aegis of Ministry of Education PMMNMTT scheme.
- Completed a MOOC titled "6.86x: Machine Learning with Python-From Linear Models to Deep Learning"- a course of study offered by MITx, an online learning initiative of the Massachusetts Institute of Technology during Feb 05, 2023 - May 19, 2023. E-certification: <https://courses.edx.org/certificates/bf833fd973a4492811961d98f4830d9>
- International Webinar on "Digital Health" on 20th September 2022 organized by the Department of Computer Science, Maitreyi College, University of Delhi, India.
- Cybersecurity Awareness Quiz, organized by the Department of Computer Science, Maitreyi College (University of Delhi), on Cyber Jaagrookta Diwas, 06th October 2022.
- Completed an MOOC on "Computer Vision Basics" authorized by University at Buffalo, The State University of New York and offered through Coursera during August 24, 2022 to

September 8, 2022. E-certification: <https://coursera.org/verify/QK3A6UGFUDUL>

- One-week Faculty Development Program (FDP) on "Digital Image Processing and Analysis: Applications with Practicals" organized by Department of Computer Science, Shaheed Sukhdev College of Business Studies, University of Delhi under Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi (PMMMNMST scheme) during 25 Apr 2022 to 30 Apr 2022.
- Three-day lecture series on "NEP 2020: Delhi University Undergraduate Curriculum Framework 2022" organized by Institute of Lifelong Learning, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi on 27th – 29th January 2022.
- 5-day Bootcamp on Explainable AI organized under Robert Bosch Centre for Data Science and Artificial Intelligence, IIT Madras during 24-28 August 2021.
- National Webinar on "Machine learning and its applications" organized by Department of Computer Science, Maitreyi College, University of Delhi, on 21 August 2021.
- Three-week MOOC on "AI for Medical Diagnostics" an online non-credit course authorized by DeepLearning.AI at Stanford University offered through Coursera during February 1, 2021 – February 21, 2021. E-Certification: <https://coursera.org/verify/CSFEE7HYMSZM>
- One-week Faculty Development Program (FDP) on "E-Content Development and Online Teaching" held from 07 February 2021 - 14 February 2021 organized by Teaching Learning Centre, Ramanujan College under the aegis of Ministry of Education PMMMNMST scheme.
- Four-week Faculty Induction Program/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" held from 11 January 2021 - 09 February 2021 organized by Teaching Learning Centre, Ramanujan College under the aegis of Ministry of Education PMMMNMST scheme.
- One-week Faculty Development Program (FDP) on "E-Learning and Developing MOOCs for Teaching Process in Higher Education" held from 14 December 2020 - 20 December 2020 organized by Teaching Learning Centre, Ramanujan College under the aegis of Ministry of Education PMMMNMST scheme.
- Special public lecture on *National Education Policy 2020 - Strategy for Self-Reliant India* on 25 August 2020.
- Webinar entitled COVID-19: Impact on Digital Media organized by Department of Computer Science, Vivekananda College on 6 May 2020.
- Webinar on COVID-19 Impact, Strategies for Education and Challenges in Virtual Learning organized by Sri Guru Gobind Singh College of Commerce on 12 May 2020.
- Faculty Development Program (FDP) on *Teachers as Mentors* held on 24th August 2018 at Deen Dayal Upadhyaya College.
- One-week Faculty Development Program (FDP) on "Data Science and Big Data Analytics" conducted by ICT Academy from 06 March 2018 to 10 March 2018 held at Deen Dayal Upadhyaya College, University of Delhi.
- National workshop on Plagiarism: Issues and challenges organized by Jawaharlal Nehru University, New Delhi on 23 April 2014.

ANKIT RAJPAL

Signature of Faculty Member