

**NIKITA KASHYAP****Assistant Professor**

Department of Electronics & Communication Engineering,
School of Studies of Engineering & Technology Guru
Ghasidas Vishwavidyalaya (A Central University)
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Qualifications- Ph.D., M.E., B.E.

Area of Interest/Specialization- Image Processing, Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, IOT and Related fields.

Experience- 9 years

Research Articles-

- **Nikita Kashyap** and Arun Kumar Kashyap, (2025) “Deep Learning VGG19 Model for Precise Plant Disease Detection”, Agricultural Science Digest, 1-8. doi: 10.18805/ag.D-6220.
- Arun Kumar Kashyap, **Nikita Kashyap**, and Rohit Kumar Bargah, (2025) “Advances in biopolymer-based nanocomposite materials for food packaging applications” Journal of Polymer and Composites 2025; 13(03), ISSN: 2321-2810.
- Smriti Jain, Buddi Jain and **Nikita Kashyap**, (2025) “Hematological and Biochemical serum markers in Breast Cancer: Prognosis, diagnosis and treatment significance”. Exploratory Research and Hypothesis in Medicine. (Accepted).
- **Nikita Kashyap**, Ramlakhan Pandey, Snehlata Mishra and Arun Kumar Kashyap (2024), “Deep learning models for the identification of blood cancer types by using microscopic images”, Journal of Nonlinear Analysis and Optimization, Vol. 15, Issue No. 01, pp. 71-77, ISSN: 1906-9685.
- **Nikita Kashyap** and Arun Kumar Kashyap (2024), “Artificial Intelligence for plant disease detection”, Shodha Prabha, Vol. 49, Issue No. 01, pp. 85-96, ISSN: 0974-8946.
- **Nikita Kashyap** and Arun Kumar Kashyap. (2024), “Enhanced Skin Disease Detection and Classification System Using Deep Learning Technique”. International Journal of Advanced Technology and Social Sciences. Vol. 2. Pp. 93-104.
- **Nikita Kashyap**, Pragati Patharia and Arun Kumar Kashyap (2023), “Gesture-Based Control of Multimedia Player Using Python and OpenCV”, International Journal of Advanced Technology and Social Sciences (IJATSS), Vol. 1, No. 4, pp. 267-278.

- Arun Kumar Kashyap, Sujit Shah, Ajay Kumar, Buddhi Prakash Jain and **Nikita Kashyap** (2022), "Identification of putative therapeutic candidates of plasmodium falciparum by in-silico comparative genomics analysis", International Journal of Bioinformatics Research and Applications. Vol- 18, Issue – 4, pp. 358-383.
- Murshid Raza, Prem Kumar, Utkarsh Raj, and **Nikita Kashyap** (2022), "Exploring Skin Cancer Diagnosis through Image Processing and Machine Learning: A Comprehensive Survey", Chhattisgarh Journal of Science and Technology, Volume 19, Issue 1, 2022, pp.- 237-240.
- **Nikita Kashyap** (2022), "Enhanced LSB Replacement Technique for Robust Image Watermarking", Chhattisgarh Journal of Science and Technology, Volume 19, Issue 2, 2022, pp.- 175-179.
- Burru Venkata Siddartha Yadav, Narsimham S. Priyanka Kashyap, and **Nikita Kashyap** (2022), "Virtual Mouse System Utilizing AI Technology", Chhattisgarh Journal of Science and Technology, Volume 19, Issue 2, 2022, pp.- 28-31.
- **Nikita Kashyap** (2022), "Exploring digital watermarking: An overview of applications and techniques", Chhattisgarh Journal of Science and Technology, Volume 19, Issue 4, 2022, pp.- 45-48.
- **Nikita Kashyap** (2021), "A comprehensive review of the internet of things (IOT) and its diverse application", Chhattisgarh Journal of Science and Technology, Volume 18, Issue 3, pp.-27-29.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh. (2019), "Develop a Novel Screening Tool Based on Wavelet Transform for Identification of Diabetic Retinopathy". Anusandhan (AUJ-AN), Vol 9, issue 17, pp.41-46.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh. (2019), "Review of Digital image processing techniques for detection of diabetic retinopathy". International Journal of Emerging Technologies and Innovative Research. Vol. 6, Issue 3, 559-563.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh. (2019), "A Novel Approach for Detecting and Grading Diabetic Retinopathy using Wavelet Transform and Artificial Neural Network". International Journal of Research in Electronics and Computer Engineering, IJRECE. Vol. 7, Issue 2, 100-104.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh. (2019), "Comparison of Different Diabetic Retinopathy Detection Algorithms with a Proposed One Using Neural Network and DWT". International Journal of Engineering development and research (IJEDR). Vol. 7, Issue 3, pp. 298-304.
- **Nikita Kashyap**, A. Ahmad, G.R. Sinha. (2014), "3-Level DWT Image Watermarking Against Frequency & Geometrical Attacks", International Journal of Computer Network & Information Security.
- **Nikita Kashyap** and G. R. Sinha. (2012), "Image Watermarking Using 2-Level DWT", Advances in Computational Research, Vol. 4, No.1, pp. 42-45.

- **Nikita Kashyap** and G. R. Sinha. (2012), “Image Watermarking Using 3-Level DWT”, I. J. Modern Education and Computer Science, Vol. 3, pp. 50-56.

Proceedings in Conference

- **Nikita Kashyap** and Dharmendra Kumar Singh. (2017), “Color Histogram Based Image Retrieval Technique for Diabetic Retinopathy Detection”. 2nd **IEEE** sponsored International Conference for Convergence in Technology (I2CT). 799-802, DOI: 10.1109/I2CT.2017.8226238.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh. (2017), “Mobile Phone Based Diabetic Retinopathy Detection System Using ANN-DWT”. 4th **IEEE** UPCON Conference on Electrical, Computer and Electronics, Mathura, India. 463-467, DOI: 10.1109/UPCON.2017.8251092.
- **Nikita Kashyap**, Arun Kumar Kashyap (2024), “A Pre-Trained convolutional neural network-based model for skin diseases classification”, American Institute of Management and Technology Conference Proceeding (AIMTCP), Bilaspur, (C.G.), India. Vol. 4, No. 1, pp. 240-246, ISSN: 2769-5093 (Online).
- **Nikita Kashyap**, Arun Kumar Kashyap and Vivek Tiwari (2023) “A review on Cellular Biomolecule identification using Machine learning” American Institute of Management and Technology Conference Proceeding (AIMTCP).
- Pratibha Sahu and **Nikita Kashyap** (2023), “IoT Based Waste Collection and Monitoring System for Smart Cities: A Comprehensive Survey” International Conference on Trends in energy and environmental research for sustainable development (TEERSD), Bilaspur (C.G.), India.
- **Nikita Kashyap**, G. R. Sinha. (2013) “Robust Image Watermarking Scheme Based on LSB Replacement” National Conference on Advances in Computing (NCAC’13), North Maharashtra University, Jalgaon, India. pp. 45-50.
- **Nikita Kashyap** et al. (2025). “Smart Health Monitoring System: Advancing Remote Diagnosis and Patient Care” International conference on Next-Generation AI, Innovation, and Engineering Excellence (ICNIEE 2025), organized by Electronics and Telecommunication Department of Ajeenkya D Y Patil School of Engineering, Pune.
- **Nikita Kashyap** et al. (2025). “Critical Review of Designing multiple neural network-based intelligent computing procedures for solving the anthrax disease model used in animal ” International conference on Next-Generation AI, Innovation, and Engineering Excellence (ICNIEE 2025), organized by Electronics and Telecommunication Department of Ajeenkya D Y Patil School of Engineering, Pune.

Recent Books/Book Chapters etc.-

- **Nikita Kashyap** and Arun Kumar Kashyap (2025). “The Desktop Voice Assistant Enhancing Accessibility and Efficiency for Individuals with Disabilities”, In: Modern Digital Approaches to Care Technologies for Individuals with Disabilities, IGI Global Scientific Publishing. DOI: 10.4018/979-8-3693-7560-0.ch013.
- Arun Kumar Kashyap, Shabir Imteyaz Khan, **Nikita Kashyap** (2022). “Biotechnological Role in Corona Vaccine Development”, In: Deepika Saini, Prabhat Kumar Singh (eds), Climate Change & Water Security Challenges for Adaptive Water Management. ABS Books, India.
- **Nikita Kashyap**, Dharmendra Kumar Singh, Girish Kumar Singh and Arun Kumar Kashyap (2021). Identification of Diabetic Retinopathy Stages Using Modified DWT and Artificial Neural Network. Akinik Publications, New Delhi. DOI: <https://doi.org/10.22271/ed.book.1314>.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh (2020). “Mobile Phone Based Diabetic Retinopathy Detection System”, In: Ayman S. El-Baz, Jasjit S. Suri (eds). In Computer-Assisted Diagnosis, Diabetes and Fundus OCT. **Elsevier**. DOI: <https://doi.org/10.1016/B978-0-12-817440-1.00004-8>.
- **Nikita Kashyap**, Dharmendra Kumar Singh and Girish Kumar Singh (2019). “Color Histogram and Smartphone-Based Diabetic Retinopathy Detection System”, In: Ray, K., Sharan, S., Rawat, S., Jain, S., Srivastava, S., Bandyopadhyay, A. (eds) Engineering Vibration, Communication and Information Processing. Lecture Notes in Electrical Engineering, Vol 478. **Springer**, Singapore. DOI: https://doi.org/10.1007/978-981-13-1642-5_58.

Patent

- A design patent has been granted for the innovation titled “IoT-based Automatic Water Irrigation Sprinkler” (Design No. 446074-001) on 07 May 2025 by the Patent Office, Government of India.
- Published a patent titled “Improved stability and efficiency of organic tandem solar cells with low-loss interconnecting layers” in Patent Office Journal No. 38/2022 dated September 23, 2022, Application No.- 202241053333 A

Awards and Honors:

- Received Best Paper Award 2023, in the International Conference on Advancement in Science, Management, Technology and Social Sciences (ICASMTSS).
- Qualified UGC-NET Examination June 2013 in the subject “Electronics Science”.
- Qualified GATE Examination in 2011.

Paper presented in Seminar/ Conferences

- Paper Presentation titled "Smart Farming: IoT-based Precision Agriculture and Crop Management" during the ICSSR-sponsored seminar, "Implementing AI Solutions in Agriculture: Navigating Challenges and Harnessing Opportunities for Viksit Bharat@2047," held on 18th November 2024 at IIT Guwahati.
- Oral Presentation in International Conference on Innovative Research in Science, Management and Technology (ICIRSMT) on topic A pre Trained convolutional neural network-based model for skin diseases classification on January 07, 2024, Jointly Organized by **Atal Bihari Vajpayee University**, Bilaspur, (C.G.), India and Jai Narayam Vyas University, Jodhpur, India.
- Oral Presentation in **International Conference** on Advancement in Science, Management, Technology and Social Sciences (ICASMTSS) on topic A review on Cellular Biomolecule identification using Machine learning on April 29-30, 2023, Organized by Sant Gahira Guru Vishwavidyalaya Saruja, Ambikapur (C.G.), India.
- Oral Presentation in **International Conference** on Trends in energy and environmental research for sustainable development (TEERSD) on topic IoT Based Waste Collection and Monitoring System for Smart Cities: A Comprehensive Survey on November 02-03, 2023, organized Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.), India.
- Oral Presentation in International Conference on Engineering vibration, communication and information processing on topic Color Histogram and Smartphone-Based Diabetic Retinopathy Detection System on March 09, 2018 organized by Manipal University Jaipur, Rajasthan, India.
- Oral Presentation in International Conference on IEEE Sponsored 2nd International conference for convergence of technology (I2CT) on topic Color Histogram Based Image Retrieval Technique for Diabetic Retinopathy Detection on April 09, 2017, Pune, India.
- Oral Presentation in International Conference on 4th IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics (UPCON) on topic Mobile Phone Based Diabetic Retinopathy Detection System Using ANN-DWT on October 26-28, 2017 organized by GLA University Mathura (U.P.), India.
- Oral Presentation in national Conference on Innovation in Science, Engineering & Technology (NCISET) on topic develop a novel screening based on wavelet transform for the identification of diabetic retinopathy on 20 April 2019 jointly organized by Dr. C. V. Raman University, Rabindranath tagore University, Aiscet Group of University & Patna Sahib Technical Campus, Bhagwanpur Vaishali Bihar, India.
- Oral Presentation in national Conference on Advances in Computational (NCAC 2012) on topic Image watermarking using 2-Level DWT on 16 March 2012 organized by North Maharashtra University, Jalgaon, India.

Invited lecture / Resource Person in Seminar/ workshop

- Delivered an expert talk as a Keynote Speaker on the topic “The Role of AI in the Development of Next-Generation Smart Grids” during a five-day International Faculty

Development Programme (16-20 June 2025) on “AI-Powered Smart Grids: Advancing Resilient and Equitable Energy Systems”, organized by the Department of Electrical Engineering, O.P. Jindal University, Raigarh (C.G.).

- Delivered an Invited talk as a resource person on “The Integration of Artificial Intelligence and IoT for Enhanced Environmental Monitoring”, in the two-day international seminar (10-11 February 2024) on Environment and Sustainable Development: Perspectives and Issues organized by Govt. S.P.M. College Sitapur, Surguja (C.G.).
- Delivered an Invited talk as a resource person on “Ethical Academic Writing” in a lecture series on 06 January 2024, organized by Govt. E. Raghavendra Rao PG Science College, Bilaspur.
- Delivered an Expert talk on the topic “Impact of IoT on Society and its Utility” in two weeks (05/06/2023-16/06/2023) Professional Training in “Allied Tools and Techniques under Interdisciplinary Engineering Fields for Learning Sustainability organized by Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.).
- Delivered an Invited talk as a resource person in one day National Seminar on “Science for Society with Society” on February 23, 2023, organized by Govt. E. Raghavendra Rao PG Science College, Bilaspur.
- Delivered an Invited talk as a resource person on “Patenting a scientific invention: the Indian scenario” in the two-day national seminar (19-20 February 2023) on Emerging New Dimensions in Intellectual Property Rights: Issues and Challenges organized by Govt. S.P.M. College Sitapur, Surguja (C.G.).

Research Supervision:

Ph.D. (Ongoing): 03

M.Tech: 01

Administrative Responsibilities –

➤ University Level / Institute Level-

- Programme Officer, National Service Scheme (NSS), Guru Ghasidas Vishwavidyalaya.
- Exam Assistant Superintendent, SoS (E&T), GGV, Session: 2024-25.
- Member, Skill Development Cell, Guru Ghasidas Vishwavidyalaya (from March 2024 onwards).
- Member, CCTV Installation & Monitoring Committee, GGV (from June 2023 onwards).
- Member, Cultural Organizing Committee, SoS (E&T), GGV (from Sep 2022 onwards).
- Member, Discipline Committee, SoS (E&T), GGV (from July 2022 onwards).
- Member, Internship of Engineering Discipline Committee, SoS (E&T), GGV.
- Member, Departmental Research Committee, SoS (E&T), GGV, Session: 2022-23, 2023-24 and 2024-25.
- Warden, Girls' Hostel, Guru Ghasidas Vishwavidyalaya, Session: 2024-25.

- Module Coordinator, Samarth Portal, Residence Allocation Management and Career Advancement Scheme, GGV Bilaspur (from April 2022 onwards).
- Member, JOSAA CSAB Counseling B. Tech. admission Committee, Session 2022-23, 2023-24, and 2024-25.
- Member, Spot Counseling B. Tech. Admission Committee, Session 2020-21 & Session 2022-23.

➤ **Department Level**

- Project Coordinator for Session 2022-23 and 2025-26.
- Mini Project Coordinator for Session 2023-24 and 2024-25.
- Placement and Internship Coordinator for Session 2025-26.
- Class Coordinator, B.Tech 1st Year for Session: 2022-23, 2nd Year for Session: 2023-24, 3rd Year for Session: 2024-25 and 4th Year for Session: 2025-26.
- Convener, Research Advisory Committee, Department of ECE, SoS (E&T), GGV.
- Member, PhD Admission Cell, Department of ECE, GGV (from July 2022 onwards)..
- Member, M.Tech Admission Cell, Department of ECE, GGV (from July 2022 onwards).
- Faculty In-charge, NBA Criteria-8, Department of ECE, GGV (from 2022 onwards).
- Faculty In-charge, NBA Criteria-6, Department of ECE, GGV (from 2024 onwards).
- Faculty In-charge, NBA Criteria-10, Department of ECE, GGV, Session- 2022-23, 2023-24, and 2024-25.
- Faculty In charge, Anti-Ragging, Department of ECE, GGV (from 2022 onwards).
- Faculty In charge, Discipline, Department of ECE, GGV (from 2022 onwards).
- Faculty In charge, Library, Department of ECE, SoS (E&T), GGV (from 2024 onwards).
- Co-coordinator, Purchase Committee, Department of ECE, GGV.
- Member, Physical Verification Committee (building/projects), Department of ECE, GGV.

FDP/Conferences/Workshop/Short-term Course Conducted

- Organizing Secretary, One-Week Online International Short-Term Course (STC) on "Next-Gen Wireless Technologies: 5G and Its Impact on Smart Systems," organized by the Department of Electronics and Communication Engineering, School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.), held from 07–12 April 2025.
- Convener, One-day Workshop on "LaTeX for Technical Writing " jointly organized by Department of Electronics and Communication Engineering, School of Studies in Engineering and Technology, and Skill Development Cell, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) on 28 February 2025.
- Convener, One-day Workshop on "Hands-on Practice on IoT and Drone Technology" jointly organized by the Department of Electronics and Communication Engineering,

School of Studies in Engineering & Technology, and Technology Enabling Centre, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) on 28 March 2024.

- Organizing Committee Member, One-week online seminar series on "Current Trends in Engineering Projects" jointly organized by Skill Development Cell and Department of Electronics & Communication Engineering, School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya Bilaspur Chhattisgarh during November 25-29, 2020.
- Organizing Committee Member, Five Days online FDP “Outcome Based Curriculum Design” Organized by the Department of Electronics & Communication and Sponsored by NITTTR Chandigarh, from 05 to 09 September 2022.

Important Links

- Google Scholar: <https://scholar.google.co.in/citations?user=ph1xkPQAAAAJ&hl=en>
- Orcid: <https://orcid.org/0009-0007-9070-5360>
- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57201726054>
- LinkedIn: <https://www.linkedin.com/in/18nikitakashyap/>
- Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/501329>

(Dr. Nikita Kashyap)