DR. NITIN KUMAR CHAUHAN

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CAREER OBJECTIVES

- To leverage my abilities and learning skills to contribute effectively to an institute, fostering creativity, higher-order thinking, and innovative approaches to enhance students' performance.

SCHOLASTICS

- **Ph.D. (ECE)**, with focus on AI-ML on ***"Optimizing Cervical Cancer Diagnosis through Machine Learning Assisted Feature Extraction and Selection,"*** USIC&T, Guru Gobind Singh Indraprastha University, New Delhi (Oct 2024).
- **M.Tech. (ECE)**, USIC&T, Guru Gobind Singh Indraprastha University, New Delhi (2014-2016), awarded with an aggregate of CPI 80.49
- **B.Tech. (ECE)**, BIT Muzaffarnagar, Uttar Pradesh Technical University, Lucknow (2009-2013), awarded with an aggregate of 72.52%

EXPERIENCE DETAILS

(Total experience of 8+ years)

- **Program Head (ECE) & Assistant Professor**, School of Computing, **MIT Vishwaprayag University (MIT VPU),** Solapur **(Aug 2026 – Present)**
- **Associate Professor (July 2025 – Aug 2026)** and **Assistant Professor (Sept 2022 - June 2025)**, Department of Electronics & Communication Engineering, **Indore Institute of Science and Technology (NAAC A+ Grade)**, Indore **(Sept 2022 - Aug 2026)**
- **Guest Faculty**, Department of Electronics & Communication Engineering, **Pusa Institute of Technology (DSEU Pusa Campus)**, New Delhi **(Aug 2019- May 2022)**
- **Guest Faculty**, Department of Electronics & Communication Engineering, **Ambedkar Institute of Advanced Communication Technology and Research (NSUT East Campus)**, New Delhi **(Aug 2018-Apr 2019)**
- **Assistant Professor**, Department of Electronics & Communication Engineering, **Greater Noida Institute of Technology**, Greater Noida **(Aug 2017 - May 2018)**

TECHNICAL SKILLS

- Machine Learning: Support Vector Machines (SVM), Random Forests, K-Nearest Neighbors (KNN), Decision Trees, Principal Component Analysis (PCA), etc.
- Deep Learning: Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Long Short-Term Memory (LSTM), Generative Adversarial Networks (GAN), Transfer Learning, etc.
- Programming Tools/Frameworks: Python, Matlab, Pspice circuit simulation, Edwin XP, Tanner EDA, HFSS tool for antenna design, etc.

PUBLICATIONS

Journals

- **Nitin Kumar Chauhan** and Krishna Singh (2026), **"Optimizing cervical cancer diagnosis with a hybrid deep neural network and progressive resizing on pap smear WSIs,"** Scientific Reports, 16, 20844. ***(SCI/SCIE Indexed)***
- **Nitin Kumar Chauhan** and Krishna Singh (2025), **"A Hybrid Learning Network with Progressive Resizing and PCA for Diagnosis of Cervical Cancer on WSI Slides,"** Scientific Reports, 15(1), 12801. ***(SCI/SCIE Indexed)***
- Mamta Mittal, **Nitin Kumar Chauhan**, et al. (2024), **"Binary and Ternary Classifiers to Detect COVID-19 Patients Using Chest X-ray Images: An Efficient Layered CNN Approach,"** New Generation Computing, 42(4), 715-737. ***(SCI/SCIE Indexed)***
- **Nitin Kumar Chauhan**, Krishna Singh, et al. (2023), **"HDFCN: A Robust Hybrid Deep Network Based on Feature Concatenation for Cervical Cancer Diagnosis on WSI Pap Smear Slides,"** BioMed Research International, 2023(1), 4214817. ***(SCI/SCIE Indexed)***
- **Nitin Kumar Chauhan** and Krishna Singh (2022), **"Performance Assessment of Machine Learning Classifiers using Selective Features Approach for Cervical Cancer Detection,"** Wireless Personal Communications, 124(3), 2335-2366. ***(SCI/SCIE Indexed)***

Conferences

- Khyati Khare, Khushi Khare, Aditya Singh Bhadauriya and **Nitin Kumar Chauhan**, **"IoT-Enabled Smart Blind Stick for Intelligent Navigation Assistance of Visually Impaired Individuals,"** 2026 IEEE 18th International Conference on Computational Intelligence and Communication Networks (CICN), 2026, pp. 1339-1345. ***(IEEE Xplore & Scopus Indexed)***
- Sumit Maheshwari, Surendra Kumar, **Nitin Kumar Chauhan** and Ankit Jain, **"A Resource-Constrained Implementation and Characterization of Per-Pixel Motion Detection on Low-Power Embedded Vision Systems,"** 2026 IEEE 18th International Conference on Computational Intelligence and Communication Networks (CICN), 2026, pp. 927-931. ***(IEEE Xplore & Scopus Indexed)***
- Dharmendra Kumar, Shiv Nath Chaudhri, Mukesh Kumar, Sushma Kumari, Saurabh Agarwal and **Nitin Kumar Chauhan**, **"An Overview of Agentic AI: Perspective and Design Flows**," 2026 International Conference on Emerging Systems and Intelligent Computing (ESIC), Bhubaneswar, India, 2026, pp. 876-881. ***(IEEE Xplore & Scopus Indexed)***
- **Nitin Kumar Chauhan**, et al., **"Evaluating Deep Learning Models for Brain Tumor Detection Utilizing Transfer Learning and Fine-Tuning Approach,"** 2025 International Conference on Emerging Systems and Intelligent Computing (ESIC), pp. 201-206, 2024. ***(IEEE Xplore & Scopus Indexed)***
- Anuj Dhakariya, Akshat Awasthi, **Nitin Kumar Chauhan**, et al., "Multi-Axis Robot Arm with Mobile Control and Real-Time Object Recognition," 2025 International Conference on Electronics, AI and Computing (EAIC), 2025. ***(IEEE Xplore & Scopus Indexed)***
- Mohd Firoz Warsi, Shiv Narain Gupta, **Nitin Kumar Chauhan,** et al., **"Intelligent IoT Driven Ecosystem for Real-Time Air and Noise Pollution Detection,"** 2025 International Conference on Cognitive Computing in Engineering, Communications, Sciences and Biomedical Health Informatics (IC3ECSBHI), pp. 1156-1161, 2025. ***(IEEE Xplore & Scopus Indexed)***
- Mohd Firoz Warsi, **Nitin Kumar Chauhan**, et al., **"A Novel multi-classification approach for drugs based on ANN and other ML algorithms with hyperparameter tuning,"** 2025 3rd International Conference on Disruptive Technologies (ICDT), pp. 397-400, 2025. ***(IEEE Xplore & Scopus Indexed)***
- Aditya Shastri, **Nitin Kumar Chauhan**, et al., **"Social Media Content Control and Automation Techniques,"** IEEE Third International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), 2024.

- **Nitin Kumar Chauhan** and Krishna Singh, **"An Evaluative Investigation of Deep Learning Models by Utilizing Transfer Learning and Fine-Tuning for Cervical Cancer Screening of Whole Slide Pap-Smear Images"**, IEEE 7th International Conference on Computer Applications in Electrical Engineering-Recent Advances, IIT Roorkee, pp. 1-5, 2024. ***(IEEE Xplore & Scopus Indexed)***
- **Nitin Kumar Chauhan** and Krishna Singh, **"Diagnosis of Cervical Cancer with Oversampled Unscaled and Scaled Data Using Machine Learning Classifiers,"** 2022 IEEE Delhi Section Conference (DELCON), 2022, pp. 1-6. ***(IEEE Xplore & Scopus Indexed)***
- **Nitin Kumar Chauhan** and Krishna Singh, **"Impact of Variation in Number of Channels in CNN Classification Model for Cervical Cancer Detection,"** 2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2021, pp. 1-6. ***(IEEE Xplore & Scopus Indexed)***
- **Nitin Kumar Chauhan** and Krishna Singh, **"A Review on Conventional Machine Learning vs Deep Learning,"** International Conference On Computing, Power and Communication Technologies (GUCON), 2018, pp. 347-352. ***(IEEE Xplore & Scopus Indexed)***
- **Nitin Kumar Chauhan**, Monica Verma, and Krishna Singh, **"Graphical Structure for Block Codes and Complexity Comparison of Dual Codes,"** 5th International Conference on Computing for Sustainable Global Development (BVICAM), 2018.
- Monica Verma, **Nitin Kumar Chauhan**, and Garima Srivastava, **"Monopole Ultra-Wideband Antenna with Rejection Bands for WLAN and X-Band Satellite Communication Systems,"** 5th International Conference on Computing for Sustainable Global Development (BVICAM), 2018.
- Tulika Bajpai and **Nitin Kumar Chauhan**, **"Design and Implementation of 8-bit Digital to Analog Converter Using C-2C Architecture,"** International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC), 2018.
- **Nitin Kumar Chauhan**, **"Steganography - Seeing The Unseen,"** in Proceedings of National Conference on Advances in Engineering & Technology (JIGYASA), 2012.

Book Chapter

- **Nitin Kumar Chauhan**, Amit Kumar, et al., **" Hardware Security in AI-Enabled Smart Vehicles: Key Components and Dynamics,"** Hardware Security, 2024. ***(Scopus Indexed)***

Patent

- Title: **AI-based Solar Power Antenna**
  Inventors: **Nitin Kumar Chauhan**, et al.
  Design No.: 411217-001
  Published on: June 7, 2024
  Filed in: India

PEER REVIEW

- Review activity for **Biomedical Signal Processing and Control** (26) ***(SCI/SCIE Indexed)***
- Review activity for **Scientific Reports** (20) ***(SCI/SCIE Indexed)***
- Review activity for **Brachytherapy** (3) ***(SCI/SCIE Indexed)***
- Review activity for **Current Research in Translational Medicine** (3) ***(SCI/SCIE Indexed)***
- Review activity for **IEEE Access** (3) ***(SCI/SCIE Indexed)***
- Review activity for **Biomedical Materials & Devices** (2) ***(SCI/SCIE Indexed)***

- Review activity for **Biodata Mining** (2) ***(SCI/SCIE Indexed)***
- Review activity for **BMC Bioinformatics** (2) ***(SCI/SCIE Indexed)***
- Review activity for **BMC Medical Informatics and Decision Making** (4) ***(SCI/SCIE Indexed)***
- Review activity for **Discover Artificial Intelligence** (2) ***(SCI/SCIE Indexed)***
- Review activity for **Discover Computing** (4) ***(SCI/SCIE Indexed)***
- Review activity for **Expert Systems with Applications** (3) ***(SCI/SCIE Indexed)***
- Review activity for **JMIR Medical Informatics** (2) ***(SCI/SCIE Indexed)***
- Review activity for **Signal, Image and Video Processing** (4) ***(SCI/SCIE Indexed)***
- Review activity for **Archives of Computational Methods in Engineering** (1) ***(SCI/SCIE Indexed)***
- Review activity for **BMC Cancer** (1) ***(SCI/SCIE Indexed)***
- Review activity for **Cluster Computing** (1) ***(SCI/SCIE Indexed)***
- Review activity for **European Journal of Medical Research** (1) ***(SCI/SCIE Indexed)***
- Review activity for **Indonesian Journal of Electrical Engineering and Computer Science** (2) ***(SCI/SCIE Indexed)***
- Review activity for **International Journal of Applied and Computational Mathematics** (1) ***(SCI/SCIE Indexed)***
- Review activity for **International Journal of Computational Intelligence Systems** (1) ***(SCI/SCIE Indexed)***
- Review activity for **Iranian Journal of Science and Technology, Transactions of Electrical Engineering** (1) ***(SCI/SCIE Indexed)***
- Review activity for **Optics and Laser Technology** (1**) *(SCI/SCIE Indexed)***
- Review activity for **Qeios** (1)
- Review activity for **Results in Engineering** (1) ***(SCI/SCIE Indexed)***
- Also, reviewed several articles of **International IEEE/Scopus Indexed Conferences**.

KEY HIGHLIGHTS

- **GATE-2017, GATE-2016 & GATE-2014** qualified.
- Participated in **One Week AICTE Training And Learning (ATAL) Academy Faculty Development Programme** on **" Addressing Defamation Claims in the Age of Deepfake: Protecting Security & Privacy in Democratic India"** conducted by UIT, RGPV Bhopal from 17-22 November 2025.
- Participated in **One Week Faculty Development Programme** on **"Applications of AI to Power Systems"** conducted by Avanthi Institute of Engineering and Technology, Anakapalle from 01-06 Dec 2025.
- Participated in the **e-Yantra Teachers Robotics Competition (eYTRC 2024)** organized by **e-Yantra, IIT Bombay,** from 16 September 2024 (1-Month Duration).
- Served as **Technical Program Committee (TPC) Member** at the **3rd International Conference on Artificial Intelligence, Machine Learning and Cybersecurity (ICAMC-2025)** organized by HMRITM, Delhi on 01-02 May 2025.
- Participated in **One Week Faculty Development Programme** on **"Exploring Computational Intelligence"** conducted by VIT-AP University from 16-20 July 2024.
- Participated in **One Week Faculty Development Programme** on **"Essential Skills for Professional Development** in Higher Education" conducted by SIFRE from 01-07 July 2024.

- Participated in **One Week Faculty Development Programme** on **"AI for Sustainable Development"** conducted by Vishwakarma Institute of Information Technology (VIIT), Pune from 05-09 August 2024.
- Participated in **One Week Faculty Development Programme** on **"Mastering AI Tools for Faculty Excellence"** conducted by VIIT, Pune from 23-27 December 2024.
- Participated in **One Week Faculty Development Programme** on **"Recent Developments in Pure and Applied Mathematics"** conducted by IIST, Indore in association with the Indian Mathematical Society from 23-27 December 2024.
- Participated as a team member in the **eLSI Hackathon 2024** under the e-Yantra Lab Setup Initiative, organized by the **Department of Computer Science and Engineering, IIT Bombay**.
- Participated as **Mentor of Team "Drastantah"** in the Grand Finale of **Smart India Hackathon (SIH 2023)**, Organized by the Ministry of Education on 19-20 Dec, 2023.
- Participated in **One Week Faculty Development Programme** on "Recent Trends in Healthcare" conducted by Vishwakarma Institute Of Information Technology, Pune on 18-22 Dec, 2023.
- Participated in **One Week Faculty Development Programme** on "**Artificial Embedded System"** conducted by NITTTR Chandigarh on 24-28 July 2023.
- Completed a course on **"Introduction to Embedded Systems and Robotics"** organized by **E-yantra, IIT Bombay,** in February 2023.
- Participated in **Two-Week Certificate Program** on **"Machine Learning for Computer Vision"** conducted by E&ICT Academy, IIITDM Jabalpur from 29 Jun - 8 July 2020.
- Participated in **One Week STTP on "Data Science & Learning Systems for Engineering Research & Design"** jointly organized by NIT, Kurukshetra, and ECB, Bikaner, under TEQIP-III on 24-30 Jun 2020.
- Participated in **One Week Faculty Development Programme** on **"Emerging Research Trends in Computer Science & IT"** at Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi on 24-29 July 2017.
- Completed a course on **"Fundamentals of Deep Learning for Multiple Data Types"** at NVIDIA Deep Learning Institute.
- Completed a course on **"Fundamentals of Deep Learning for Computer** Vision" at NVIDIA Deep Learning Institute.
- Completed a course on **"MATLAB Onramp"** at MathWorks Training Service.
- Participated in a webinar **"Probing the Universe via Radio Waves: From the Perspective of Microwave Engineering"** organized by **IEEE Microwave Theory & Techniques Society Student Branch Chapter, IIT (BHU)**.
- Participated in the circuit-designing event **"Circuitrix"** in the University Tech-fest **"InfoXpression-2015"** at USICT.
- Worked as an Event Head for the discipline team at the University Tech-fest "InfoXpression-2015" at USICT.
- College topper in B.Tech. ECE at BIT, Muzaffarnagar.
- Participated in a workshop on **"Hands-on practice workshop on MIC fabrication."**
- Participated in a workshop on **"Methods of Embedded Systems in Robotics & Future Scopes."**
- Participated in an online "Covid-19 Awareness Program" organized by D. K. T. E. Society's Textile and Engineering Institute, Ichalkaranji.
- Participated in the "Food Safety Quiz" organized by the Department of Food Technology, A K S University, Satna.

PROJECTS & TRAINING

- Dissertation submitted on **"Graphical representation of linear block codes"** as coursework for M.Tech.
- Major project on **"Microcontroller-based moving message display"** and minor project on **"T.V. remote control jammer"** as coursework of B.Tech.
- 4-Week Summer Training from Bharat Electronics Limited, Kotdwar in Different Fields i.e., surface mount technology & assembly of various defense instruments during B.Tech.

PERSONAL TRAILS

- Father's Name: Mr. Susheel Kumar
- Date of Birth: 27th June 1992
- Gender: Male
- Nationality: Indian
- Marital Status: Married
- Languages Known: English, Hindi

HOBBIES & INTERESTS

- Visiting new places and cooking
- Politics & Social Networking

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