RESUME

Dr. Nishant Kumar
Senior Assistant Professor
Dept. of Computer Science and Engineering
Gurukula Kangri (Deemed to be University), Haridwar

15 Years of Teaching Experience
IBM AI Practitioner Certificate: Instructor

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Professional Summary

A dedicated and passionate academic with over a decade of experience in teaching and research in Computer Science and Engineering. Proven expertise in cloud computing, machine learning, and web application development, demonstrated through a strong record of SCI, Scopus Indexed publications, patents, and successful research and development projects. Seeking to leverage extensive experience in a challenging academic role at a forward-thinking university to contribute to innovative research and foster student success.

Areas of Research Interest

- Cloud Computing & Virtualization
- Reinforcement Learning
- Machine Learning & AI Applications
- Web Development & Architecture

Education

- **Ph.D. in Computer Science** | August 2020 Gurukula Kangri (Deemed to be University), Haridwar, India
- **Master of Technology, Computer Science and Engineering** | May 2010 SRM University, Chennai, India *CGPA: 8.6/10*
- **Bachelor of Technology, Computer Science and Engineering** | June 2008 Gurukula Kangri (Deemed to be University), Haridwar, India *Percentage: 71%*

Academic Appointments

Senior Assistant Professor | Department of Computer Science & Engineering Faculty of Engineering & Technology, Gurukula Kangri (Deemed to be University), Haridwar, India

- Permanent Faculty: October 2010 – Present

Administrative Positions

1. Website Administrator (July 2018- till date)
2. Joint IQAC Director (July 2025 – till date)

Publications

SCI / ESCI Indexed

1. Rajal, R., Kumar, N., Kumar, S. *et al.* A comprehensive review of product recommendation systems using deep learning techniques. *Knowl Inf Syst* **68**, 8 (2026). https://doi.org/10.1007/s10115-025-02667-0

2. Kumar, A., Kumar, N., Kuriakose, J. et al. A deep transfer learning based approaches for the detection and classification of acute lymphocytic leukemia using microscopic images. Multimed Tools Appl (2024).

3. Kumar, A., Kumar, N., Kuriakose, J. et al. A Review of Deep Learning-Based Approaches for Detection and Diagnosis of Diverse Classes of Drugs. Arch Computat Methods Eng (2023). https://doi.org/10.1007/s11831-023-09936-7

4. Kumar, S., Kumar, N., Aggrawal, M., & Deshwal, V. (2020). Optimisation and prediction of Karanja oil transesterification with domestic microwave by RSM and ANN. *International Journal of Ambient Energy*. DOI: 10.1080/01430750.2020.1848919

Scopus indexed

5. Kumar, D. N. (2025). SAFPRS: Novel framework of sentiment analysis for lifestyle product recommendation. International Journal of Mathematical, Engineering and Management Sciences, 10(6), 2223-2247. https://doi.org/https://doi.org/10.33889/IJMEMS.2025.10.6.103

6. Kumar, D. N. (2025). A Machine Learning based Crop Recommendation System using Soil Ecology for Sustainable Agriculture. Environment Conservation Journal, 26(4). https://doi.org/https://doi.org/10.36953/ECJ.33893158

7. Kumar, D. N. (2024). Telugu language hate speech detection using deep learning transformer models: Corpus generation and evaluation. Systems and Soft Computing. https://doi.org/https://doi.org/10.1016/j.sasc.2024.200112

8. N. Kumar and R. Kumar, “Scheduling of tasks (Cloudlets) in heterogeneous processing cloud environment,” Int. J. Emerg. Technol., vol. 11, no. 3, pp. 417–421, 2020

9. Aggarwal, M., Kumar, N., & Kumar, R. (2018). Optimized Cost Model with Optimal Disk usage for Cloud. *Big Data Analytics, Advances in Systems and Computing*.

10. Aggrawal, M., & Kumar, N. (2014). Review of Research Issues in Cloud Computing. *International Journal of Applied Engineering Research (IJAER)*, 9(21).

Peer Reviewed

11. Kumar, D. N. (2023). Exploring the Role and Relevance of Artificial Intelligence in the Vedas: A Contemporary Analysis. Vedic Vag Jyoti, 11.
12. Kumar, N., & Kumar, R. (2023). Energy Efficient Virtual Machine Migration in Cloud Computing using Reinforcement Learning. *International Journal of Intelligent Systems and Applications in Engineering*, 11(4s), 519-525.

13. Kumar, N., & Kumar, R. (2023). Energy Efficient Host Overloading Detection using Reinforcement Learning. *Journal of Engineering Science and Technology*, 18(2), 1133-1144.

14. Kumar, N., & Kumar, R. (2018). Energy Efficient Host Overloading Detection Algorithm in Cloud Computing. *International Journal of Computer Sciences and Engineering*, 6(7).

15. Kumar, N., Kumar, R., & Aggarwal, M. (2018). Energy Efficient DVFS with VM Migration. *European Journal of Advances in Engineering and Technology*, 1, 61-68.

16. Kumar, N. (2015). Virtualization: Technology Helping Environment. *Essence – International Journal for Environmental Rehabilitation and Conservation*, VI(1), 58-62.

17. Kumar, N. (2015). A Comparative Analysis of Scheduling Algorithms affecting QOS in Cloud Environment. *International Journal of Computer Science and Network*, 4(1).

18. Kumar, N. (2015). An Application Deployment to Openshift Cloud Using Existing GIT Repository from Local Client. *International Journal of Engineering And Computer Science*, 4(1).

19. Kumar, N. (2014). Virtualization: A Concept Implementation for cloud. *International Journal of Engineering and Technical Research (IJETR)*, 2(3).

Conference Proceedings

1. Khanduja, N., Kumar, N., & Chauhan, A. (2026, January). *Text Classification Techniques for Low-Resource Indian Languages: Challenges and Trends*. In **Technological Advancements in Engineering and Management Sciences** (pp. 193–222). Springer. https://doi.org/10.1007/978-3-032-04606-2_13

2. R. Rajal, N. Kumar and S. Kumar, "**Explainable AI Framework for Advertisement Recommendation Using SHAP and TabNet**," 2025 International Conference on Intelligent and Secure Engineering Solutions (CISES), Greater Noida Gautam

Budh Nagar, India, 2025, pp. 1506-1512, https://doi.org/10.1109/CISES66934.2025.11265278

3. N. Kumar, “Smart Agriculture using AI and IoT”, presented in the International Conference on Computational Intelligence and Sustainable Engineering Solutions, 20-22 May 2022, organized by GL Bajaj University, Noida.
4. N. Kumar, “Cloud Providers Analysis and Comparison”, presented in National Conference on Science & Technology for Indigenous Development in India, September 2015, held at Faculty of Engineering & Technology.
5. N. Kumar, “Implementing Software as a Service Made Easy”, presented in National Symposium NSI-39, in Oct 2014, held at Faculty of Engineering and Technology, Gurukula Kangri Vishwavidyalaya.
6. N. Kumar, “Automated Cloud Labs”, published in Regional Symposium on “Technovations for inclusive human development”, 2014, held at Faculty of Engineering and Technology, Gurukula Kangri Vishwavidyalaya.
7. N. Kumar, “Human Recognition System by using Hand Geometry” published in national conference “ETES-2013”, November 2013, held at Faculty of Engineering and Technology.
8. N. Kumar, “An Overview of Deadlock detection in distributed database systems” published in national conference “ETES-2013”, November 2013, held at Faculty of Engineering and Technology.
9. N. Kumar, “Comparative Study of Cloud Computing and SOA” published in national conference “ETES-2013”, November 2013, held at Faculty of Engineering and Technology.
10. N. Kumar, “Environmental Hazards of Internet Usage : Searching and Surfing”, published in National Conference on “ Green Technologies for Environmental Rehabilitation”, February 2012, held at Faculty of Engineering & Technology, Gurukula Kangri Vishwavidyalaya, Haridwar.
11. N. Kumar, “Sensor Networks: Attacks and Counter Measures”, published in National Conference on “Green Technologies for Environmental Rehabilitation”, February 2012, held at Faculty of Engineering & Technology, Gurukula Kangri Vishwavidyalaya, Haridwar.
12. N. Kumar, “Green Computing: An Indian Perspective”, published in International Conference on “World Congress for Man and Nature”, November 2011, held at Gurukula Kangri Vishwavidyalaya.
13. N. Kumar, “Analysis of RSA and DES Algorithm Based on Encryption Time” presented in National Conference on “INNOVATIONS AND APPLICATION IN ENGINEERING AND APPLIED SCIENCES”, November 2011, held at Faculty of Engineering & Technology, Gurukula Kangri Vishwavidyalaya, Haridwar.

14. Paper titled “Artificial Neural Network Applications in Air Quality Monitoring and Management” published in “International Journal for Environmental Rehabilitation and Conservation”, Volume II No. I 2011 [30-64], [ISSN 0975-6272].

Chapter Publications (Springer & IEEE)

1. N. Khanduja, D. N. Kumar and D. Arun Chauhan, "**A Retrieval-Augmented Generation Model for Faith-Aligned QA in Bhagvat Gita**," *2025 International Conference on Intelligent and Secure Engineering Solutions (CISES)*, Greater Noida Gautam Budh Nagar, India, 2025, pp. 1524-1528, https://doi.org/10.1109/CISES66934.2025.11265637
2. Rajal, R., Kumar, N., & Kumar, S. (2025, August). ***DeepFM-driven personalized recommendations for children: Tackling data sparsity with negative sampling***. In **Advances in Mathematics for Engineering Sciences** (pp. 267–279). Springer. https://doi.org/10.1007/978-3-031-95693-5_14
3. Matta, G., Pant, G., Lambha, S. K., & Kumar, N. (2025, August). *Behavioural analytics with digitized sustainability*. In **Advances in Mathematics for Engineering Sciences** (pp. 281–318). Springer. https://doi.org/10.1007/978-3-031-95693-5_15

Patents

1. **Australian Patent:** A Novel Framework for Energy-Efficient Virtual Machine Migration in Cloud Computing.
    - Application No.: 202211046582 A
    - Publication Date: 26/08/2022
2. **Australian Patent:** An Artificial Intelligence and Machine Learning Based System for Predicting the Risk of Diabetes.
    - Application No.: 202211045384 A
    - Publication Date: 19/08/2022

Books

1. Kumar, N., Suyash B., Khanduja N. **Introduction to IT Systems.** Professional Prints, New York, USA. Print ISBN: 978-1-966695-58-5, eISBN: 978-1-966695-59-2 (Under Publication).
2. Kumar, N., & Suyash B. **Handbook of Unix**. Satyam Publishing House. ISBN: 978-93-90431-03-7.

Research & Development Projects and Apps

1. **GKV Attendance App (Android App):**

A purpose-built Android application enabling students to mark attendance only when physically present on campus, using GPS-based geofencing.

- Geolocation-based attendance validation
- Designed specifically for classroom use
- Eliminates proxy and manual attendance errors

2. **UNIX Lab Establishment**

   Established a UNIX-based laboratory environment accessible via the intranet for students to learn and execute programs, enhancing practical understanding of core computer science concepts.

   - *Technologies: UNIX*

3. **IQAC Portal (https://iqacportal.gkv.ac.in)**
   When I joined as Joint IQAC Director, I found that there is very big problem of data arrangement of the teacher's publications, so I created this portal, where every single teacher can login and update their profiles. This portal also allow to download a resume in proper format, also the same data is source of the information on the university website (www.gkv.ac.in), so this is keeping everything updated. To maintain the accuracy and authenticity of the information, the data uploaded is being check by the specific in-charge role person.
   - *Technologies: Laravel Framework, MariaDB*.

4. **Alumni Portal (https://alumniportal.gkv.ac.in)**
   I am in touch with the alumni of the FET and their keeping data is a big task and also every time I conduct Alumni Meet a new WhatsApp group, which is again a big gap, so I created this. Here our alumni's can connect the fellow members and also can locate other alumni on a world map. Here alumni can contribute to different campaign and the events.
   - *Technologies: Laravel Framework, MariaDB*

5. **CrowdSpark App (https://crowdspark.nishantmunjal.com)**
   CrowdSpark is a real-time interactive audience engagement platform similar to Kahoot. Create quizzes and polls, host live sessions, and engage your audience instantly.
   - *Technologies: JS, MariaDB*
6. **LMS (https://lms.nishantmunjal.com)**
   I was using automatic wordpress LMS platform which was having some limitation due which I started creating my own LMS platform, which is still under development.
   - *Technologies: JS, MariaDB*

7. **Founder of NMRIL Labs (Developing many AI simulations and Courses https://nmril.nishantmunjal.com)**
   NMRIL lab is specifically designed mainly for two objectives

- First is to create products that are useful for the teachers and students.
- Second objective is to create courses that help readers to understand the recent technologies through different example and simulations.

8. **University Grievance Portal (grievance.gkv.ac.in)**:
   Led the design and development of a web portal for students and faculty to submit and track grievances, facilitating efficient resolution and escalation.
   - *Technologies: PHP, AJAX, CSS, MySQL*

Teaching & Curriculum Development

1. **Self-Paced Online Course (https://nishantmunjal.com/course-option)**
   - Problem Solving using C Language
   - Mastering Database Management System
   - Linux and Shell Programming
   - Linux System Administration
   - Advance AI (Currently Developing)

These all courses are updating every year with the different quizzes more examples etc.

Invited Lectures & Presentations

- **E-Content Development and Online Teaching**, IQAC, Sahoo Ram Swaroop Mahila Mahavidyalaya, Bareilly (UP), August 2020.
- **Modern Methods for Remote Teaching & Learning Practices**, Faculty of Engineering and Technology, Gurukula Kangri (Deemed to be University), Haridwar.
- **Research Methodology and ICT Tools**, Socio Cultural Education Society, Bareilly, UP, June 2020.
- **Empowerment through Digitization**, IQAC, Institute for Advanced Studies in Education, Bilaspur, Chhattisgarh, September 2020.

Professional Development & Certifications

- **Specialization: Machine Learning with Tensorflow on Google Cloud Platform**, Google Cloud on Coursera.
- **Specialization: Python for Everybody**, University of Michigan on Coursera.
- **Faculty Development Program: Emerging Research trends in Computer Science and IT**, BVICAM, New Delhi (Two Weeks, June 2020).

- **Short-Term Course: Blockchain and Machine Learning**, Gurukula Kangri Vishwavidyalaya in collaboration with IBM and AICTE (One Week, July 2020).

Technical Skills

- **Programming Languages:** C, C++, PHP, Python, JavaScript, JQuery, AJAX
- **Databases:** MySQL, MongoDB
- **Web Technologies:** Apache Web Server, CakePHP Framework
- **Operating Systems:** Linux (CentOS), macOS, Windows
- **Developer Tools:** Git, Sublime Text, MySQL Workbench, VSCode
- **AI Development Platform:** Cursor, Antigravity

Professional Service (Latest)

Conference Organization

- Organizing Secretary, International Conference on Automation for Sustainable Future (INCASF 2025), 2025.

Reviewer

- International Journal of Mathematical, Engineering and Management Sciences (IJMEMS), 2025
- International Conference on Computational Intelligence and Sustainable Engineering (2022)
- International Journal of Ambient Energy, Taylor & Francis (2020)
- ICDMAI Conference, Society for Data Science (2020)
- ICCEDE International Conference on Emerging Digital Era (2020)

Professional Memberships

- Member, Computer Society of India (CSI) till 2016.
- Member, India Science Congress Chapter Haridwar

Personal Details

- **Date of Birth:** 29 December 1987
- **Languages:** English (Fluent), Hindi (Native)
- **Nationality:** Indian