



Department of Computer Science, Faculty of Science,
Gurukula Kangri (Deemed to be University),
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Dr. KRISHAN KUMAR

PRESENT WORKING STATUS

Assistant Professor (Stage-3), Dept. of Computer Science, Faculty of Science, Gurukula Kangri (Deemed to be University), Haridwar, Uttarakhand-249404

QUALIFICATION

MCA (IMS Ghaziabad), **UGC-NET(CS)**, **Ph.D. (CS & IT)** (Faculty of Engineering & Technology, M.J.P. Rohilkhand University, Bareilly)

FATHER'S NAME: Sh. R. B. Singh

AREA OF SPECIALIZATION: Data Structures, Deep Learning, Machine Learning, NLP

TEACHING EXPERIENCE: 23 years

RESEARCH PAPERS PUBLISHED IN JOURNALS: 31

1. Mahendra Singh Aswal, Vishnu Vishwakarma, Krishan Kumar, Durgesh Pant, "Sentiment Analysis, Emotion Detection and Topic Modeling of Covid-19 Twitter Posts in Uttarakhand," Journal of Mountain Research, P-ISSN: 0974-3030, E-ISSN: 2582-5011, Vol. 19(2), (2024), 203-211; Received: 22.06.2024 Revised: 08.11.2024 Accepted: 17.11.2024, **Web of Science, SCIE**
<https://doi.org/10.51220/jmr.v19-i2.21>
2. Vibhor K. Vishnoi, Krishan Kumar, Brajesh Kumar, Bhutiani, R, "A stacking ensemble machine learning based approach for classification of plant diseases through leaf images," Environment Conservation Journal, ISSN: 2278-5124(Online), 0972-3099 (Print), **(Scopus)**, 25(3), 767-778; 18-Aug-2024
<https://doi.org/10.36953/ECJ.28742840>
3. Satyendra Singh, Krishan Kumar, Brajesh Kumar, "Analysis of Feature Extraction Techniques for Sentiment Analysis of Tweets," Turkish Journal of Engineering **(Scopus)**, I-ISSN: 2587-1366, IF: 1.5, July-2024, Vol- 8(4), pp: 741-753
<https://doi.org/10.31127/tuje.1477502>
4. Priyanka Pradhan, Brajesh Kumar, Krishan Kumar, Rakesh Bhutiyani, "Plant Disease Detection Using Leaf Images and Involution Neural Network," Environment Conservation Journal **(Scopus)**, Vol.25, No.2(2024),UGC-CARE (Group-II),June-2024
5. Pankaj, Brajesh Kumar, P. K. Bharti, Vibhor K Vishnoi, Krishan Kumar, Shashank Mohan, Krishan Pal Singh, "Paddy yield prediction based on 2D Images of Rice Panicles using Regression Techniques," Visual Computer: International Journal of Computer Graphics, Springer, **(SCI Journal), IF-3.5** ; Vol. Electronic ISSN:1432-2315, Print ISSN:0178-2789, 04-Oct-2023.
<https://doi.org/10.1007/s00371-023-03092-6>
6. V. K. Vishnoi, K. Kumar, B. Kumar, S. Mohan and A. A. Khan, "Detection of Apple Plant Diseases Using Leaf Images Through Convolutional Neural Network," IEEE Access International Journal **(SCI**

Journal), IF- 3.557; vol. 11, pp. 6594-6609, 2023, doi: 10.1109/ACCESS.2022.3232917. **ISSN:** 2169-3536,28-Dec-2022.

7. Krishna Kumar, Dr. Krishan Kumar, "A DEEP LEARNING APPROACH FOR THE ANALYSIS AND DETECTION OF OBJECT IN VIDEO FRAMES USING YOLO FASTER RCNN," IJRDO - Journal of Computer Science Engineering, Vol – 78, Issue – 4, pp: 1-19, ISSN (Online): 2456-1843, May-2022. **IF-2.380**
8. Vibhor Vishnoi, Krishan Kumar, Brajesh Kumar, "A comprehensive study of Feature Extraction Techniques for Plant Leaf Disease Detection," Journal of Multimedia Tools and Applications by **Springer (SCI Journal)**, Vol-81, pages 367–419, print ISSN: 1380-7501, E ISSN: 1573-7721, 18-Sep-2021; **IF-2.313**
9. Vibhor Vishnoi, Krishan Kumar, Brajesh Kumar, "Plant disease detection using computational intelligence and image processing," Journal of Plant Diseases and Protection by **Springer, SCI Journal**, Print ISSN:1861-3829, E ISSN: 1861-3837, Vol-128, pp 19-53, on 30-Aug-2020. <https://doi.org/10.1007/s41348-020-00368-0>; **IF- 1.526**
10. Vikas Sagar, Krishan Kumar, "Autoencoder Artificial Neural Network Public Key Cryptography in Unsecure Public Channel Communication," International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-11, pp 4023-4032, September 2019, ISSN:2278-3075 (Online). UGC-Approved Journal & **Scopus** Indexed, IF-5.54
11. Sanjeev Kumar, Krishan Kumar, "Neuro-Fuzzy based Call Admission Control for next Generation Mobile Multimedia Networks," International Journal of Engineering and Advanced Technology (IJEAT), Bhopal, MP, India, June, 2019, Vol-8, pp 2057-2066, ISSN: 2249-8958 (Online). UGC-Approved Journal & **Scopus** Indexed, IF-5.97
12. Vikas Sagar, Krishan Kumar, Vibhor Vishnoi, "A COMPARATIVE ANALYSIS OF CRYPTOGRAPHIC ALGORITHMS", International Journal of Research and Analytical Reviews (IJRAR), P- ISSN 2349-5138, Vol-6, Issue-1, pp- 358-373, Mar 2019, IF-5.75
11. Vikas Sagar, Krishan Kumar; "A Hybrid Soft Computing Approach on Security Algorithm of Cryptography", International Journal for Research in Applied Science & Engineering Technology (IJRASET), Vol-4, Issue-11, pp- 2851-2858, ISSN: 2321-9653, Nov 2017; IF-7.129
12. Bisht, Anil Kumar; Singh, Ravendra; Bhutiani, R.; Bhatt, Ashutosh; Kumar, Krishan, "Water quality modelling of the River Ganga using Neural networks with reference to the various training functions", Environment Conservation Journal, ISSN: 2278-5124 (Online), ISSN: 0972-3099 (Print), Vol-18, pp 41-48, **UGC Approved** Journal, April 2017. IF-0.914
13. Krishna Kumar, Dr. Krishan Kumar, Dr. SS Bedi, Rahul Mishra, "Motion Clustering Estimation on Video Sequences Using Kohonen's Self Organizing Map (SOM) Neural Networks", International Journal of Computer Science and Network (IJCSN), Vol- 6, Issue-2, pp 196-207, ISSN (Online): 2277-5420, April 2017. Published by D-LAR Labs [Digital Library of Academic Research]. IF-1.5
14. Sanjeev Gangwar, Dr. Krishan Kumar, "Route Optimization in MANET Using Hopfield Neural Networks: MANET-HOP", International Journal of Computer Science and Information Security (IJCSIS), Vol. 14, No.6, pp-53-59, ISSN: 1947-5500, Pittsburgh, PA, USA, June-2016. IF- 0.702
15. Suneel Kumar, Krishan Kumar, Rahul Mishra, "Scene Text Recognition using Artificial Neural Network: A Survey", International Journal of Computer Applications, Vol- 137, Number-6, pp 40-50, ISSN: 0975-8887, March 2016. Published by Foundation of Computer Science, New York, USA. IF- 0.887
16. Krishna Kumar, Krishan Kumar, Rahul Mishra, "Block-based Motion Estimation in Video Frames using Artificial Neural Networks: A Selective Review", International Journal of Computer Applications, Vol- 137, Number-1, pp 27-32, ISSN: 0975-8887, March 2016. Published by Foundation of Computer Science, New York, USA. IF-0.704
17. Krishan Kumar, "Hopfield Neural Networks for Aircrafts' Enroute Sectoring: KRISHAN-HOPES", International Journal of Computer Science and Network, ISSN (Online): 2277-5420, Volume-5, Issue-1, PP-149-156, 29-02-2016. IF- 1.5; Egypt

18. Mittal, M., and K. Kumar. "Delay Prediction in Wireless Sensor Network Routing Using ART1 Neural Network", IEEE African Journal of Computing & ICTs, **IEEE Nigeria Section, ISSN 2006-1781**, Vol 8. No. 3, pp 175-180, September 2015. IF- 0.21
19. Mohit Mittal, Krishan Kumar, "Quality of Services Provisioning in Wireless Sensor Networks using Artificial Neural Network: A Survey", International Journal of Computer Applications, ISSN: 0975-8887, May-2015. Published by Foundation of Computer Science, Vol-117; pp-28-40, New York, USA. IF-0.704
20. Sanjeev Gangwar, Krishan Kumar, Mohit Mittal, "Cluster Head Selection in Mobile Ad-hoc Network (MANET) Using ART1 Neural Network", IEEE African Journal of Computing & ICTs, IEEE Nigeria Section **ISSN 2006-1781**, Vol 8. No. 1, pp 197-204, March 2015. IF- 0.21
21. Mohit Mittal, Krishan Kumar "Energy Efficient Homogeneous Wireless Sensor Network Using Self-Organizing Map (SOM) Neural Network," IEEE African Journal of Computing & ICTs, IEEE Nigeria Section, **ISSN 2006-1781**, Vol 8. No. 1, pp 179-184, March 2015. IF- 0.21
22. Krishan Kumar, Mohit Mittal, "Energy Efficient Wireless Sensor Network Based on Self-Organizing Map Neural Network", International Journal of Applied Computational Science and Mathematics (IJACSM) published by the Research India Publication, **ISSN 2249-3042**, pp-3-9 Vol 5. April 2015. IF-NA
23. Mohit Mittal, Krishan Kumar, "Performance Improvement of Heterogenous Wireless Sensor Network Using Self Organizing Feature Map (SOFM) Neural Network," International Journal of Communication Technology for Social Networking Services, Vol-2, ISSN(p): 2205-863X, Vol-2, pp.13-28, March-2014, Tasmania 7005, Australia.
24. Sanjeev Kumar, Krishan Kumar, Anand Kr Pandey, "A Comparative Study of Call Admission Control in Mobile Multimedia Networks using Soft Computing," International Journal of Computer Applications, Vol-107, Number-16, pp 5-11, ISSN: 0975-8887, December 2014. Published by Foundation of Computer Science, New York, USA.
25. Krishan Kumar, "ART1 Neural Networks for Air Space Sectoring," International Journal of Computer Applications, 37(1):20-24, ISSN: 0975-8887 (IF: 0.887), January 2012. Published by Foundation of Computer Science, New York, USA.
26. S Gangwar, S Pal, K Kumar, "Mobile ad hoc networks: a comparative study of QoS routing Protocol", International Journal of Computer Science Engineering & Technology (IJCSET), Vol-2, pp 771-775, ISSN: 2231-0711, Jan-2012. IF-
27. Sushil Gangwar, Krishan Kumar, "3D Face Recognition Based On Extracting PCA Methods", International Journal of Engineering Research and Applications (IJERA), IF-1.69, IC VALUE: 5.09, ISSN: 2248-9622, Vol2, Issue 2, Mar-Apr 2012, pp 693-696. UGC-CARE (S.No. 4525)
28. Sanjeev Gangwar, Krishan Kumar, "Mobile Ad Hoc Networks routing Protocol: A Detailed Performance Examination of AODV, DSR and DSDV", International Journal of Computer Applications, ISSN: 0975-8887, Vol.49, No.9, pp 37-41, July 2012, IF-.
29. Sanjeev Gangwar, Krishan Kumar, "Mobile Ad Hoc Networks: A detailed Survey of QoS Routing Protocols," International Journal of Distributed and Parallel Systems, France, ISSN: 0976-9757, Vol.2, No.6, pp 309-321, November 2011, <https://airccse.org/journal/ijdps/papers/1111ijdps26.pdf>.
30. K. Kumar, R. Singh, Z. Khan, A. Indian "AIR TRAFFIC RUNWAY ALLOCATION PROBLEM Using ARTMAP (ART1)", Published in Ubiquitous Computing and Communication Journal, Korea, ISSN: 1992-8424, Vol 3, No 3, pp 130-136, July 31, 2008.
31. K. Kumar, R. Singh, Z. Khan, "AIR TRAFFIC ENROUTE CONFLICT DETECTION USING ADAPTIVE RESONANCE THEORY MAP NEURAL NETWORKS (ART1)", Published in Ubiquitous Computing and Communication Journal, Korea, ISSN: 1992-8424, Vol 3, No 3, pp 28-35, July 31, 2008.

1. Delivered an Invited Lecture titled "*Large Language Models: A Detailed Review*" as keynote speaker at International Conference organized by **Faculty of Engg. & Technology, Gurukul Kangri (Deemed to be University), Haridwar, Uttarakhand** on 07-Mar-2025.
2. Delivered an Expert Lecture as Keynote Speaker titled "*Data Science and Machine Learning for Pharmaceutical Research Using Python*" for PhD, M.Pharm, B.Pharm. and D.Pharm. students as resource person organized by Dept. of Pharmaceutical Sciences, **Faculty of Mgt. Studies, Gurukul Kangri (Deemed to be University), Haridwar, Uttarakhand** on 06-Mar-2025.
3. Delivered an Expert Lecture titled "Databases, Algorithms, and Data Analysis in Research" for PhD and M.Pharm students as resource person organized by **Dept. of Pharmaceutical Sciences, Gurukul Kangri (Deemed to be University), Haridwar, Uttarakhand** on 11-Feb-2025.
4. Delivered an Expert Lecture titled "*Emerging Technologies in Indian Digital Era*" at Orientation Program of BBA first year students as resource person organized by **Faculty of Mgt. Studies, Gurukul Kangri University, Haridwar, Uttarakhand** on 30-Aug-2024
5. Delivered an Expert Lecture entitled "*Computer Skills and Apps Installation*" at Transitional Curriculum Programme, Ministry of Ayush, for BAMS first prof. students as resource person organized by **Uttarakhand Ayurved University, Gurukul Campus Haridwar, Uttarakhand** on 18.11.2023
6. Delivered an invited expert lecture titled "DATA SCIENCE: NATURAL LANGUAGE PROCESSING & ITS APPLICATIONS" in the AICTE Sponsored (ATAL) Five Day Faculty Development Programme on "Current Trends and Future Prospects in Data Science," Organized by the **Department of Computer Science, School of Mathematics, Statistics and Computational Sciences, Central University of Rajasthan, Ajmer** on 14-Jan-2022.
7. Delivered a Lecture titled "*E Tools- Google Classroom*" as the speaker in the Orientation Programme organized by **Dept. of Pharmaceutical Sciences, Gurukul Kangri (DU), Haridwar, U.K.** on 24-Aug-2021.
8. Delivered a Lecture titled "*Covid19 Impact: Emerging Trends in Computer Technology*" as the speaker in the Teachers' Training Programme organized by **S.V.M. Inter College, Haridwar, U.K.** on 03-Jul-2021.
9. Delivered an Expert Lecture entitled "Natural Language Processing" at International E-Conference on Advance Computing Technologies (ACT-2021) as keynote speaker organized by **Invertis University, Bareilly, UP** on 15.01.2021
10. Delivered a Lecture titled "*Covid19 Impact: Emerging Trends in Computer Technology*" as the keynote speaker in the Webinar on "EMERGING TRENDS & TECHNOLOGIES IN COMPUTER SCIENCE" organized by Department of Computer Application, MLK PG College, Balrampur (UP) affiliated to **Siddhartha University, Kapilvastu, Siddhartha Nagar** on 09-Jan-2021.
11. Lecture titled "*Covid19 Impact: Recent Trends in Information Technology*" delivered as the resource person in a Webinar organized by **GL Bajaj Institute of Management, Greater Noida, India** on 31-Oct-2020.
12. Lecture titled "*Neural Networks and its Applications*" delivered as the resource person in "Lecture Series on Emerging Trends & Technologies in Computer Science," organized by Department of CS and IT, **Mahatma Gandhi Central University, Champaran, Bihar, India** on 04-Oct-2020.
13. Lecture titled "*YouTube: A new Era of Learning/Teaching*" delivered as the resource person in the Online One Week National Workshop on 'Best Practices of ICT Tools in Teaching and Learning' from August 3, 2020 to August 8, 2020, organized by Department of Computer and Information Sciences, **Jagadguru Rambhadracharya Divyang University, Chitrakoot, UP, India** on 05-Aug-2020.
14. Lecture titled "*COVID-19 IMPACT: Recent Trends in IT*" delivered in the WEBINAR organized by Department of Computer Science & Engineering, Institute of Engineering & Technology, **V.B.S. Purvanchal University, Jaunpur, U.P.** as resource person on 29-Jul-2020.

15. Lecture titled "COVID-19 IMPACT: Challenges & Opportunities for Information Technology" delivered in the WEBINAR organized by Department of Computer Science, **Krishna Group of Colleges, Bijnor, UP** as resource person on 28-Jun-2020.
16. Lecture titled "COVID-19 IMPACT: Challenges & Opportunities for Information Technology" delivered in the WEBINAR organized by **Department of Computer Science & Engineering, Invertis University, Bareilly, U.P.** as resource person on 21-May-2020.
17. Lecture titled "COVID-19 IMPACT: Challenges & Opportunities for Information Technology" delivered in the WEBINAR organized by **Department of Computer Science, Vivek College of Education, Bijnor, UP** as resource person on 17-May-2020.
18. Delivered an Expert Lecture entitled "Artificial Neural Networks and Deep Learning" at Two-days TEQIP-FDP on "Advance Deep Learning Techniques" at **Roorkee College of Engg. Roorkee (RCE), Uttarakhand** on 16-Mar-2020
19. Delivered an Expert Lecture entitled "Digital India" at **2nd Orientation Program at ETI (Empaneled Training Institute), NSS, Gurukul Kangri Vishwavidyalaya, Haridwar** on 22-Mar-2020
20. Delivered an invited talk "EVOLUTION AND SIGNIFICANCE OF COMPUTERS IN HISTORY AND ARCHAEOLOGY" at **Department of History and Archaeology, Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand** on 14-Feb-2020.
21. Lecture titled "Artificial Neural Networks" delivered as keynote speaker in 5th National Conference at **SRMS, College of Engg. Technology & Research, Bareilly, UP** affiliated to UPTU, Lucknow on 09-Mar-2019.
22. Delivered an invited talk "SIGNIFICANCE OF INFORMATION TECHNOLOGY IN HISTORY AND ARCHEOLOGY" at **Department of History and Archaeology, Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand** on 21-Nov-2018.
23. Delivered an invited talk "USE/SIGNIFICANCE OF INFORMATION TECHNOLOGY IN YOGIC SCIENCES " at **Department of Human Consciousness and Yogic Sciences, Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand** on 21-Nov-2018.
24. Delivered an Expert Lecture titled "NEURAL NETWORKS AND ITS APPLICATIONS" in International Seminar on Advanced Computing Technologies (ACT-2018) from 20th - 21st April 2018 organized by **Invertis Institutes of Computer Applications, Invertis University, Bareilly, UP.**
25. Delivered an Expert lecture entitled "Artificial Neural Networks, Its Applications & Future Scope" at **G.B. PANT Engineering College, Ghurdauri, Pauri, Uttarakhand** on 17-Nov-2017.
26. Lecture titled "Artificial Neural Networks and its Applications" delivered in 4th National Conference titled "Contemporary Research in Computing and Informatics CRCI-2017" at **SRMS, College of Engg. Technology & Research, Bareilly, UP** affiliated to UPTU, Lucknow as Keynote Speaker on 25-Mar-2017.
27. Lecture titled "Artificial Neural Networks and Its Applications" delivered at International Conference on Emerging Trends in Information Technology (ICETIT 2015), on 24-Mar-2015 at Dept. of Information Technology, **Babasaheb Bhim Rao Ambedkar University (A Central University), Lucknow.**
28. Delivered a guest lecture entitled "Relevance of Information Technology in Yoga" at Department of Human Consciousness and Yogic Sciences, Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand on 22-Nov-2017.
29. Lecture titled "Evolution of Computers and Recent Trends in Information Technology" delivered at Department of Computer Science, **Vivek College Bijnor, U.P.** affiliated to MJP Rohilkhand University, Bareilly, on 19-Nov-2016.
30. Lecture titled "Advanced Java" delivered at **FMS Hall, Gurukul Kangri University, Haridwar** during the **CSI Golden Jubilee Event (CSI-Haridwar Chapter)** on 20-Apr-2015.

31. Lecture titled "Advance JAVA/J2EE" for B.Tech. & BCA students delivered at **Prem Prakash Gupta Institute of Engineering & Technology, Bareilly, U.P.** on 24-Feb-2015
32. Lecture titled "Advance JAVA/J2EE" delivered for MCA & BTech students at Department of CSIT, **Institute of Engineering & Technology, M.J.P. Rohilkhand University, Bareilly** on 04-Feb-2015.
33. Lecture entitled "Developing E Mail ID and Introduction to Internet with its applications" for Teachers in a Workshop Organized by **Army School Bareilly Cantt, Bareilly, UP** on 27-29 June 2009.

ACTED AS CHAIRPERSON/EXPERT/CONVENER :07

1. Chaired a Session at Int. Conference organized by FET, GK(DU), Haridwar, India on 07-Mar-2025.
2. Acted as convener in Four-days Induction Programme for MCA Ist Year (2020) held from 07-Dec-2020 to 12-Dec-2020.
3. Acted as convener in Four-Days Online Teacher's Training Programme held from 07-Aug-2020 to 10-Aug-2020 for University Teachers and delivered a lecture to record the attendance through the Google meet.
4. Acted as the Coordinator in the Webinar titled "Demystifying Analytics & Other Fantastical Beasts" held on 18-Jul-20 jointly organized by Faculty of Technology & Faculty of Mgt. Studies, GKV, Haridwar.
5. Acted as the Jury Member in District Youth Parliament August 2019, Jointly organized by Gurukula Kangri Vishwavidyalaya, Nehru Yuva Kendra and District Administration Haridwar sponsored by United Nation volunteer on 02-Aug-2019.
6. Acted as the Jury Member in Haridwar District Youth Parliament November 2018, Jointly organized by Gurukula Kangri Vishwavidyalaya and Government of India on 28-Jan-2019.
7. Attended a DRC at GB Pant Institute of Technology, Ghurdauri, Pauri Garwal on 03-Oct-2017 as EXTERNAL EXPERT for Ph.D. students.

RESEARCH PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS: 25

1. Satyendra Singh, Krishan Kumar, Brajesh Kumar, "The Impact of Pre-Processing Techniques' Performance on User Generated Text Reviews," **Springer** Int. Conf. on Artificial Intelligence and Networking (ICAIn-2024) Organized Jointly by Guru Teg Bahadur Institute of Technology, Delhi and Portalegre Polytechnic University, Portugal, Europe on 24-25 Sept 2024.
2. Vibhor Vishnoi, Krishan Kumar, Brajesh Kumar, K Bhatia, "Fine Tuning the Pre-Trained Convolutional Neural Network Models for Plant Disease Classification Using Transfer Learning," Int. Conf. on Advances in Science, Engineering, and Technology (ICASET - 2024);, " CRC Press, **Taylor and Francis**, 30 and 31 July 2024
3. Satyendra Singh, Krishan Kumar, Brajesh Kumar, "Sentiment Analysis of Twitter Data Using TF-IDF and Machine Learning Techniques," **IEEE** International Conference on "Machine Learning, Big Data, Cloud and Parallel Computing: Trends, Perspectives and Prospects" (Com-IT-Con-2022) Organized by Manav Rachna International Institute of Research & Studies, Faridabad, Haryana, India, May 26-27, 2022
4. Sanjeev Kumar; Madhu Sharma Gaur; Krishan Kumar; Prem Sagar Sharma, "A Novel Counting Sort for Real Numbers with Linear Time Complexity," **IEEE** International Conference on Computational Intelligence and Sustainable Engineering Solutions (CISES) organized by GL Bajaj, Greater Noida, India; ISBN:978-1-6654-8004-8 (E), 20-21 May 2022, DOI: 10.1109/CISES54857.2022.9844325

5. Vibhor Vishnoi, Krishan Kumar, Brajesh Kumar, "Crop Disease Classification Through Image Processing and Machine Learning Techniques Using Leaf Images," **IEEE** International Conference organized by MIET, Meerut, UP, 16-17 Dec 2021
6. Ajay Indian, Karamjit Bhatia and Krishan Kumar, "Off-line Handwritten Hindi Character Recognition using Deep Learning with Augmented Dataset", submitted for Proceedings of ICCDE – 2020, an International Conference on "Cybersecurity in Emerging Digital Era" organized by G L Bajaj Institute of Technology and Management, Greater Noida, UP, India during Oct. 9-10, 2020, **Springer**, Singapore, Print ISBN: 978-981-16-8011-3.
7. Vikas Sagar, Krishan Kumar, "The Relevance of Quantum Cryptography in Modern Security: A Review", National Seminar On Applications of Scientific and Statistical Software in Research, 30-31 March, 2017, Funded by U.P. State Government, Organized by School of Sciences U. P. Rajarshi Tandon Open University Allahabad, UP, pp 75-82, ISBN 978-144-340-0044, BY Common Ground Publication, USA.
8. Vikas Sagar, Krishan Kumar, "Data Security in Quantum Cryptography: A Review", National Seminar on Emerging Trends at Uttar Pradesh Rajarshi Tandon Open University, Allahabad, 30-31 March, 2017, ISBN 978-144-340-0044, BY Common Ground Publication, USA.
9. Sanjeev Gangwar, Krishan Kumar, "Shortest Path Routing In Mobile Ad hoc Networks", 4th National Conference on "Contemporary Research in Computing and Informatics (CRIC)", at SRMS, College of Engg. Technology & Research, Bareilly, UP, ISBN: 93-5267-876-1, Vol.4, 25.03.2017.
10. Mahadev, V Kumar, K Kumar, "Classification of DDos Attack Tool and its Handling Techniques and Strategies at Application Layer," **IEEE** Conference on Advances in Computing Communication and Automation (ICACCA), organized by Faculty of Engg. & Technology, MJP Rohilkhand University, Bareilly, 30-Sep-2016, IEEEExplore, ISBN:978-1-5090-3481-9.
11. Sanjeev Kumar, Krishan Kumar, Anand Kumar Pandey, "Dynamic Channel Allocation in Mobile Multimedia Networks Using Error Back Propagation and Hopfield Neural Network (EBP-HOP)", Twelfth **Elsevier** International Conference on Communication Networks (ICCN – 2016) August 19th - 21st 2016, Bangalore, INDIA, Vol-89, pp 107-116, ISSN: 1877-0509, if 2.27
12. Mohit Mittal, Krishan Kumar "Data Clustering In Wireless Sensor Network Implemented On Self Organization Feature Map (SOFM) Neural Network", **IEEE** International Conference on Computing, Communication and Automation (ICCCA2016), ISBN: 978-1-5090-1666-2, pp. 202-207, April-2016, Greater Noida, India.
13. Mohit Mittal · Krishan Kumar · Amarjeet singh · Tripatdeep Singh, "Performance Improvement in AODV Routing Protocol with Artificial Intelligence_", 3rd International **IEEE** Conference on "Computing for Sustainable Global Development", 16th - 18th March, 2016, Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), ISBN 978-93-80544-20-5, pp 49-53, New Delhi (INDIA)
14. S. Kumar, K. Kumar and P. Kumar, "Mobility based call admission control and resource estimation in mobile multimedia networks using artificial neural networks," 1st **IEEE** Int. Conf. on Next Generation Computing Technologies (NGCT), ISBN: 978-1-4673-6807-0, UPES, Dehradun, India 04-05 September 2015, pp. 852-857.
15. Vikas Sagar, Krishan Kumar "A Symmetric Key Cryptographic Algorithm Using Genetic Algorithm and Error Back Propagation Neural network," Proceedings of the 9th INDIACom; INDIACom-2015; (**IEEE** Conference ID: 35071 2015) 2nd International Conference on "Computing for Sustainable Global Development", 11th - 13th March, 2015 (ISSN 0973 – 7529 and ISBN 978-93-80544-14-4 serials) pp 1.81-1.86.
16. Krishan Kumar, "Self-Organizing Map (SOM) Neural Networks for Air Space Sectoring", **IEEE** International Conference CICON 2014: Udaipur, Rajasthan, India, 14-11-14 to 16-11-14, ISBN- 978-1-4799-6929-6, pp 1096-1100.

17. Mohit Mittal, Krishan Kumar "Network Lifetime Enhancement of Homogenous Sensor Network Using ART1 Neural Network", **IEEE** International Conference CICN 2014: Udaipur, Rajasthan, India, 14-11-14 to 16-11-14, ISBN- 978-1-4799-6929-6, pp 472-475.
18. Vikas Sagar, Krishan Kumar "A Symmetric Key Cryptographic Algorithm Using Counter Propagation Network (CPN)", **ACM** International Conference ICTCS 2014: Udaipur, Rajasthan, India, 14-11-14 to 16-11-14, pp 51.1-51.5, ISBN No 978-1-4503-3216-3.
19. Krishan Kumar, Mohit Mittal, "E-Banking Security and Challenges: A Survey", International Conference on "Paradigm Shift in Innovative Business Management", PP 8-12, 07-12-2013 at Indore, M.P., India, ISBN-978-81-927004-1-0.
20. Ajai Indian, MP Singh, Krishan Kumar, "Performance evaluation of disk scheduling algorithms using neural networks" National conference on next generation computing and national Security –NCNGCIS 2011,25-Mar-2011 by IMS Noida, ISBN: 978-81-921148-0-4.
21. Krishan Kumar, "Aircraft Vehicular Ad-Hoc Network (AVANET)", Proceeding of 5th National Conference; INDIACom-2011, (ISSN 0973 – 7529 and ISBN 978-93-80544-00-7 serials) pp 145-150. In Association with Computer Society of India, 10-11 March 2011, New Delhi
22. Jitendra Chaudhary, Krishan Kumar, Jaspreet Kaur, "Waste management: a Social Perspective" International Seminar on Waste Management: A Social Perspective organized By Invertis University, Bareilly, 23th & 24thOctober' 2010.
23. Krishan Kumar, Santosh Kumar, Ajai Indian, "Information Technology for Sustainable Development of Rural India", International Seminar titled "Sustainable Development of Rural India" organized by IIMS, Bareilly held on 10th & 11thOctober' 2009.
24. Krishan Kumar, "Air Traffic Sequencing Scheduling & Delay Control Using ARTMAP", National Seminar titled "Advanced Computing & Communication", by Invertis Institute of Engineering & Technology, Bareilly, UP 25-26 Aug-2007.
25. Krishan Kumar, "Encryption and decryption techniques for computer networks", National Seminar titled "Network Security & Data warehousing" Organized by KCMT, Bareilly, U.P. held on 24-Apr-2004.

CONFERENCES/ SEMINARS/ WORKSHOPS ATTENDED: 18

1. Participated in an offline workshop on "Outcome Based Education" for department IQAC ambassadors organized by IQAC, GK(DU) on 09-Sep-2023.
2. Participated in an online workshop on e-Procurement (CPPP & **GeM**) organized by National Academy of Human Resource Development from 17.10.2022 to 18.10.2022
3. Attended an online Webinar on "Nature Inspired Computing: Algorithms and Applications" organized by Department of Computer Science, Gurukul Kangri (Deemed to be Univesrity), Haridwar, India on 16-Feb-2022.
4. Attended a 03 days National Workshop on Creating and Using Management System organized by Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth, New Delhi from 22nd to 24th Jan 2020.
5. Attended a Two-Days National Workshop on, "WordPress & SEO," Organized by Department of Computer Science, Gurukul Kangri Vishwavidyalaya, Haridwar, India from 15.02.19 to 16.02.19
6. Attended a Two-week National Workshop on, "Research Methodology in Sciences & Technology," Organized by Department of Zoology & Environmental Sciences, Gurukul Kangri Vishwavidyalaya, Haridwar, India from 04.10.18 to 13.10.18.
7. Attended and Chaired a session in International Seminar on Advanced Computing Technologies (ACT-2018) from 20-21 April 2018 organized by Invertis Institutes of Computer Applications, Invertis University, Bareilly UP.

8. Attended a Two-Days workshop titled, "SAKSHAM - IT Champion Training Program," organized by Microsoft at Gurukul Kangri Vishwavidyalaya, Haridwar from 22.09.17 to 23.09.17.
9. Attended a One-Day workshop titled, "Popularisation of Remote Sensing Based maps & Geospatial Information," jointly organized by ISRS & ISRO on 11.08.17.
10. Attended and Chaired a session in International Conference SMART, organized by College of Computing Sciences & Information Technology, TMU, Moradabad from **25-27 Nov-2016**.
11. Chaired a session in International Seminar, ACTA, organized by TULA's Institute Dehradun from **08-09 Apr-2016**.
12. Attended a National Workshop on, "Popularization Harnessing intellectual Prosperity & Its management for Growth and prosperity", Organized by Faculty of Management Studies, Gurukul Kangri University, Haridwar, India on 17-05-2014.
13. Attended a Workshop on, "Harnessing intellectual Prosperity & Its management for Growth and prosperity", Organized by Faculty of Management Studies, Gurukul Kangri University, Haridwar, India on 17-05-2014.
14. Attended a National Workshop on, "Yoga and Alternative Therapies", Organized by Dept. of Human Consciousness and Yogic Science Gurukul Kangri University, Haridwar, India from 26-03-2014 to 01-04-2014.
15. Attended a Workshop, "Workshop on Neural Networks and Its Implementation with MATLAB", Organized by Bharati Vidyapeeth Deemed University, New Delhi from 17 to 18-01-2014.
16. National Seminar on Innovations and Applications in Engg. & Applied Sciences, 9-10 Nov'2011, Faculty of Engg. & Technology, Gurukul Kangri University, Haridwar.
17. Short term course "Supply Chain Management & E-Business" at IIT Kharagpur from 23.11.09 to 28.11.09 by Department of Industrial Engineering & Management.
18. Attended a Workshop by Wipro Technologies, "Mission10X for High Teaching Impact Skills, DEL CARNAGIE CERTIFICATION" from 02/03/2010 to 06/03/2010.

RESEARCH PAPERS PRESENTED IN NATIONAL/ INT. CONFERENCE/ SEMINARS: 12

1. Presented a paper titled "*Automatic Identification of Diseases in Crops Using Artificial Neural Networks*" in National Seminar titled "India and the Fourth Industrial Revolution: Current Problems and Forecasting Challenges," Organized by UPSC & UGC-HRDC, Kumaun University, Nainital, Uttarakhand, India, held on 17-18 December, 2018.
2. Krishan Kumar, "*Energy Efficient Homogeneous Wireless Sensor Network Using Self-Organizing Map (SOM) Neural Network*", National Conference on Recent Advances in Statistical and Mathematical Sciences and Their Applications, organized by Department of Statistics, Kumaun University, S.S.J. Campus, Almora. Uttarakhand, India, 04-10-14 to 06-10-14.
3. Krishan Kumar, Mohit Mittal "Monitoring of Environmental Parameters Using Wireless Sensor Networks and its Applications", Paper presented in National Conference titled "Recent Advances In Bio-Sciences and Drug Discovery (RABDD-2014)" held from 03-04 March 2014 at Dept. of Pharmaceutical Sciences, faculty of Ayurved and Medical Sciences, Gurukul Kangri University, Haridwar, India.
4. Krishan Kumar, Vikas Sagar "Role of Information Technology For Water Resource Management", Paper presented in National Conference titled "Recent Advances In Bio-Sciences and Drug Discovery (RABDD-2014)" held from 03-04 March 2014 at Dept. of Pharmaceutical Sciences, faculty of Ayurved and Medical Sciences, Gurukul Kangri University, Haridwar, India.
5. Krishan Kumar, "Role of Artificial Intelligence in E Banking Sector", Paper presented in National Symposium titled "Innovations in Science & technology for Inclusive Development" held at

Gurukul Kangri University, Haridwar, India; Organized by Haridwar Chapter of the Indian Science Congress Association (ISCA) on 16-Feb-14.

6. Presented a paper titled "E Waste Management," in International Seminar titled "Waste Management: A Social Perspective" organized by Invertis University, Bareilly held on October 23-24, 2010.
7. Presented a paper titled "Information Technology for Sustainable Development of India," in International Seminar titled "Sustainable Development of Rural India" organized By IIMS, Bareilly held on 10th & 11th October' 2009.
8. Presented a paper titled "A Detailed Review of Air Traffic Control in India," in National Seminar on "India – A Potential Tiger In Asian Economy" organized By Invertis Institute of Management Studies, Bareilly held on October 17 & 18, 2008.
9. Presented a paper titled "Modelling & Simulation of Airspace Conflict Control using Adaptive Resonance Theory Map," in National Seminar titled "Advanced Computing & Communication" organized By Invertis Institute of Engineering & Technology, Bareilly, U.P. held on '25th & 26th August' 2007.
10. Presented a paper titled "Air Traffic Sequencing, Scheduling & Delay Control Using ARTMAP Neural Network" in National Seminar titled "Advanced Computing & Communication" organized By Invertis Institute of Engineering & Technology, Bareilly, U.P. held on '25th & 26th August' 2007.
11. Presented a paper titled "Encryption & Decryption of Data" in National Seminar titled "Network Security & Data warehousing" organized By KCMT, Bareilly held on 24th April' 2004.
12. Paper published in Souvenir "Role of Informatics in Uttaranchal" of National Seminar on "Role of Informatics" in Uttaranchal held from 25th Jun'2004 to 26th June 2004 in SSJ Campus, Almora.

EVENTS ORGANIZED: 05

1. Co-Organizing Secretary, Two-days National Conference titled "E Waste Management: Challenges and Opportunities," 24-25 March 2022.
2. Convener, Five Days AICTE Induction Programme for MCA I year students (Session 2021-22), 05.10.21 to 09.10.21
3. Convener, University Teacher's training programme for online education, 07.08.2020 to 10.08.2020
4. Convener, AICTE Induction Programme for MCA I year students (Session 2020-21), 07.12.2020 to 12.12.2020
5. Coordinator in a Webinar on "Demystifying Analytics & Other Fantastical Beasts" jointly organized by Faculty of Technology & Faculty of Mgt. Studies, GKV, Haridwar, on 18.07.2020.

BOOKS PUBLISHED (As Author): 05

1. Authored the book (solo author) entitled "Web Technology" at UP Rajarishi Tandon Open University, Allahabad, 2019, **ISBN: 978-93-83328-12-3**; Chandrakala Universal Pvt. 42/7, Jawahar Lal Nehru Road, Prayagraj, U.P. Editor:
2. Authored the book (solo author) entitled "Client Server Technology" at UP Rajarishi Tandon Open University, Allahabad, 2020, **ISBN: 978-93-83328-13-0**; Chandrakala Universal Pvt. 42/7, Jawahar Lal Nehru Road, Prayagraj, U.P. Editor:

3. Authored the book (solo author) entitled "Windows Programming" at UP Rajarishi Tandon Open University, Allahabad, 2020; Chandrakala Universal Pvt. 42/7, Jawahar Lal Nehru Road, Prayagraj, U.P. **ISBN: 978-93-94487-68-0**, Publication date: 01-Nov-2021. Editor:
4. Authored the book (co-author) entitled "Design and Analysis of Algorithm" at UP Rajarishi Tandon Open University, Allahabad, 2021, **ISBN: 978-93-94487-22-2**, Publisher- Chandrakala Universal Pvt. 42/7, Jawahar Lal Nehru Road, Prayagraj, U.P, Publication date: 01-Nov-2021;
5. Authored the book (co-author) entitled "An Introduction to Deep Learning" by XOFFENCER International Publication, Gwalior, MP; March 2024, **ISBN: 978-81-970527-4-3(paperback)**

BOOKS EDITED: 03

1. Edited the book titled "Nanotechnology for Sustainable Development: Innovations and Applications" PNP (Pen and Paper Academy) Publication Ghaziabad, UP, India; **ISBN 978-81-985450-6-0**; 10-Feb-2025
2. Edited the book titled "Nanotechnology for All" Published by Sahitya Sansthan, Ghaziabad; **ISBN: 978-93-95397-98-8**; June-2024
3. Edited the book titled "Artificial Intelligence For Everyone" Published by Sahitya Sansthan, Ghaziabad; **ISBN: ;** June-2024

BOOKS CHAPTERS: 02

1. Wrote the book chapter titled "A Novel Concept of Nanotechnology with Natural Language Processing: Current Trends, Opportunities, Applications, and Future Research Directions" in the book titled "Nanotechnology for All" Published by Sahitya Sansthan, Ghaziabad; **ISBN: 978-93-95397-98-8**; June-2024
2. Wrote the book chapter titled "Unit-7: Descriptive Analytics-Cluster Analysis" for MCA course, Published by UP Rajarishi Tandon Open University, Allahabad, Sep-2024

Ph.D. SUPERVISION: 06

04(awarded)+ 02(under supervision)

Project: 01

S. No.	Title	Agency	Period	Grant / Amount Mobilized (Rs. Lakh)
1	SENTIMENT ANALYSIS AND TOPIC MODELING REGARDING COVID-19: A STUDY OF PUBLIC OPINIONS ON SOCIAL MEDIA NETWORKS IN UTTARAKHAND.	UCOST, Dehradun	2023-24 1 Year (Completed)	1,64,000

Patent: 01 (Indian)

Title of Invention: MACHINE LEARNING BASED PEST DETECTION AND ALERT SYSTEM FOR FARMERS USING IOT TO IMPROVE AGRICULTURE YIELD

SCOPUS/GOOGLE CITATION

	Total Citation	h- index	i10-index
Scopus	850	10	-
Google	1289	16	27

MEMBERSHIP OF DIFFERENT BODIES/ORGANIZATION

1. **IEEE** member (ID: 98928486)
2. Life Member of **Computer Society of India** (ID: I0173443)
3. Life Member of **Indian Science Congress Association** (ID: L 23347)
4. Member, Bharat Vikas Parishad, NGO, Haridwar, Uttarakhand

Awards/Honours

1. Book Publication award (for two books) by Gurukul Kangri (Deemed to be University), Haridwar 24-Dec-2024
2. Corona Yodha Samman by Bharat Vikas Parishad, Haridwar, 15-Sep-2021
3. Award of Excellence, by IPGA, State Branch, Uttarkhand 04-Dec-2021
4. Certificate of Appreciation, by Institution's Innovation Council, Ministry of HRD initiative on 08-Dec-2021

OTHER INFORMATION

1. Appointed as Assistant Professor (Govt. Job Permanent) at NIT, Jamshedpur, 2012
2. Appointed as Programmer (Govt. Job Permanent) in M.J.P. Rohilkhand University, Bareilly, 2007
3. Working as Assistant Controller of Exam (Exams), Exam Section, Gurukul Kangri (Deemed to be University), Haridwar since 22-Dec-2022
3. Running a YouTube channel "Lecture Notes in Computer Science" by Krishan Kumar Gurukul Kangri and uploaded 91 video lectures in Computer Science.

Date: 15 March 2025

[Dr. Krishan Kumar]