

Faculty Name	Dr. Niharika Prasanna Kumar	
Designation	Associate Professor Dept. of Information Science & Engineering	
Educational Qualification	B.E., M.Tech, Ph.D.	
Experience	21 Years	
Area of Interest	Computer Networks, Data Science, Machine Learning, Cyber Security	
Date of joining RVITM	1-10-2021	
Email ID	niharikapk.rvitm@rvei.edu.in	
Publications:		
International Journals: 23		
International Conference: 15		
National Journal: 05		
National Conference: 01		
Book Chapter: 01		
List of Publications		
International Refereed Journals:		
1. Niharika Prasanna Kumar, Dhanesh Ramesh, Harshith Raju P V, Kishore Srinivasan Sumukh G Mahendrakar,Niharika Prasanna Kumar,” An Integrated Framework for Securing Web Applications: Machine Learning-Driven XSS Detection and Network-Level Threat Mitigation”, Journal of Information Systems Engineering and Management,May2025, Vol. 10, Issue 3,e-ISSN:2468-4376.		
2. Niharika Prasanna Kumar,R Rajkumar,"Sentiment Analysis Framework and Its Application in Geopolitical Scenarios",International Journal on Recent and Innovation Trends in Computing and Communication,Aug 18th 2023,ISSN:2321-8169 (Online) Q3 Scopus Indexed Journal.		

3. Niharika Prasanna Kumar, "**Modeling the Impact of Covid-19 on the Farm Produce Availability and Pricing in India**", *Interdisciplinary Journal of Information, Knowledge, and Management*, January 3rd, 2022, Vol. 17, Scopus Indexed, Q2 Journal.
4. Niharika Prasanna Kumar and Kirankumar. K, "**Aspect-Oriented Support for Modular Parallel Computing**", *International Journal of Advances in Engineering and Management (IJAEM)*, vol. 6, no. 6, pp. 120–123, June. 2024, doi: <https://doi.org/10.35629/5252-0606120123>.
5. Chetan, Madan AM, Pannaga GN, Sharanya Murali, Dr. Niharika P Kumar, "**Survey on Identifying Counterfeit product using Deep Learning**", *International Journal of Advances in Engineering and Management (IJAEM)*, Feb 2024, Volume 6, Issue 2, pp: 291-294.
6. Poornima R, R Jagath, Rishab R, Dhanush N Raju, Niharika Prasanna Kumar for "**Human Activity Recognition using Deep Learning**", *TIJER - International Research Journal*, July 2023 Volume 10, Issue 7, ISSN 2349-9249.
7. Varun RK, Anjali, Rohan Koundinya UH, Niharika Prasanna Kumar, "**Revolutionizing Agriculture: A Comprehensive analysis of machine learning techniques for crop prediction**", *TIJER - International Research Journal*, July 2023 Volume 10, Issue 7, ISSN 2349-9249 (Best Paper Award).
8. Prithvi P Shenoy, Niharika Prasanna Kumar, "**A systematic review of cybersecurity with modern and ancient approaches**" *TIJER - International Research Journal*, July 2023 Volume 10, Issue 7, ISSN 2349-9249.
9. Poornima R, R Jagath, Rishab R, Dhanush N Raju, Niharika P Kumar, "**Human Activity Recognition using Machine Learning**", *International Journal of Advances in Engineering and Management (IJAEM)*, March 3rd 2023, Volume 5, Issue 3, pp: 28-34.
10. Niharika Kumar, "**Application of Blockchain in Healthcare – A Systematic Review**", *Australian Journal of Wireless Technologies, Mobility & Security*, Vol. 1, no. 1, pp. 56-60, Aug. 2021, e-ISSN 2200-1883.
11. Sneha Annigeri, Niharika Kumar, "**Using a Convolutional Neural Network, Developing and Demonstrating Diabetic Retinopathy Diagnosis System based on Fundus Photography Images**", *International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)*, Vol. 10, Iss. 7, pp. 9502-9510, July 2021, ISSN: 2319-8753
12. K. Aiswariya Milan and Niharika P. Kumar, "**Machine Learning Techniques in Healthcare—A Survey**", *Journal of Computational and Theoretical Nanoscience*, Vol. 17, No. 9/10, 4276–4279 (2020)
13. Niharika Kumar, Shreyas B, Srinidhi SP, "**A Blockchain-Based Secure and Sustainable Electronic Healthcare Record System**", *International Journal of*

14. Tina P., Shravya A, Vedant Jain, Niharika Kumar, “**Unification of KYC process using Blockchain**”, *Journal of Critical Reviews*, June 2020, Vol. 7, Issue 18, ISSN-2394-5125.
15. Niharika Kumar, Y.M Kruthi, P. Anjali George, K.S Anouksha, A. Likhitha, “**Sketch to Image Generation Using Generative Adversarial Network**”, *Journal of Critical Reviews*, June 2020, Vol. 7, Issue 11, ISSN -2394-5125.
16. Vijayalakshmi, Niharika Kumar, “**Survey on Risk Estimation of Chronic Disease using Machine Learning**”, *International Research Journal of Engineering and Technology*, Volume 6, Issue 6, June 2019.
17. Akshatha S R, Niharika Kumar, “**Evaluation of BIRCH Clustering Algorithm for Big Data**”, *International Journal of Innovative Science and Research Technology*, Volume 4, Issue 4, April-2019, ISSN No:2456-2165.
18. Bhanu Prakash HN, Niharika Kumar, “**Scaling Distributed Associative Classifier using Big Data**”, *International Research Journal of Engineering and Technology*, Volume 5, Issue 6, June 2018, e-ISSN:2395-0056, p-ISSN:2395-0072.
19. Siddu P. Algur, Niharika Kumar, “**Novel Graded, Priority Oriented Admission Control Mechanism in WiMAX**”, *Turkish Journal of Electrical Engineering and Computer Science*, 2014, ISSN 1300-0632.
20. Niharika Kumar, Siddu P. Algur, “**Three-Strike Algorithm for Bandwidth Allocation and Packet Scheduling**”, *International Journal of Wireless and Mobile Computing, Inderscience Journal*, Volume 7, Number 6, 2014, ISSN 1741-1092(online), ISSN 1741- 1084 (print), pp. 517-52.
21. Siddu P. Algur, Niharika Kumar, “**Novel user centric, game theory based bandwidth allocation mechanism in WiMAX**”, *Springer Journal on Human-centric Computing and Information Sciences*, 2013, 3:20, doi:10.1186/2192-1962-3-20, ISSN 2192- 1962.
22. Siddu P. Algur, Niharika Kumar, “**Novel MIME Type and Extension Based Packet Classification Algorithm in WiMAX**” *International Journal of Advanced Computer Science and Applications (IJACSA)*, Volume 4, Issue 8, 2013, ISSN: 2156- 5570 (Online), pp. 9-13.
23. Niharika Kumar, Balasubramanya Murthy, “**User Oriented Network Aware Bandwidth Allocation in WiMAX**”, *International Journal on Recent Trends in Engineering & Technology*, Volume 5, Number 1, March 2011, ISSN 2158-5555 (Print), pp. 8-14.

International Refereed Conferences:

1. Niharika Prasanna Kumar, Vijay Kumar Gowda KK, Dhanushree MS," A Unified Approach to Automated Penetration Testing for Enhanced Network and Web Application Security," 2nd International IEEE Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE), Bangalore, India, 2025, pp. 1-5, doi: 10.1109/IITCEE64140.2025.10915462.
2. Niharika Prasanna Kumar,Sarah R Rajgoli" AEGIS: Adaptive Ensemble-Based Guard for Intrusion Systems," 2nd International IEEE Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE), Bangalore, India, 2025, pp. 1-5, doi: 10.1109/IITCEE64140.2025.10915462.
3. Dhanesh Ramesh,Niharika Prasanna Kumar,Kishore Srinivasan,"A Blockchain Proposal - Proof of Synergy",IEEE Uttar Pradesh Section International Conference on Electrical,Electronics and Computing Engineering(UPCON),Feb 2024.
4. Niharika Prasanna Kumar,Kishore Srinivasan,Dhanesh Ramesh"**Analyzing Public Sentiment Towards LLM: A Twitter-Based Sentiment Analysis**",IEEE International Conference on Confluence of Advancements in Robotics,Vision and Interdisciplinary Technology Management(IC-RVITM).
5. Niharika Prasanna Kumar,Srivathsan Mohan,"**Sentiment Analysis of Russo-Ukrainian War using Twitter text Corpus**",IEEE International Conference on Contemporary Computing and Communications, April 2023
6. Dr. Niharika P. Kumar , Shreyas Bhaskar, Srinidhi SP, Shashank D, Srivatsa G Karanam "**Machine Learning Based Predictive Analytics For Agriculture Inventory Management System**", Fourth IEEE International Conference on Cognitive Computing and Information Processing (CCIP 2022), 23rd and 24th December 2022.
7. Niharika Kumar, "**Sentiment Analysis of Twitter Messages: Demonetization a Use Case**", *IEEE 2nd International Conference on Computational Systems and Information Technology for Sustainable Solution*, 21-23 December 2017.
8. Niharika Kumar, "**IoT Architecture and System Design for Healthcare Systems**", *IEEE International Conference on Smart Technologies for Smart Nation*,17-19 August 2017.
9. Niharika Kumar, Akshata D Joshi, Ashwini V, Sreevidya S Sastry, Tanuja G, "**A Hybrid Scheduling Algorithm for Mobile WiMax Networks**", at the *International Conference on Electrical, Electronics & Computer Engineering*, ICEECE 2013, Delhi, May 2013, pp 54-56.
10. Siddu P. Algur, Niharika Kumar, "**Mutually shared bandwidth allocation mechanism in IEEE 802.16e**", *IEEE Symposium on Wireless Technology and Applications (ISWTA)*, Malaysia, 2013, ISSN : 2324-7843, ISBN: 978-1-4799-0155-5 (Print), pp.142-146.
11. Siddu P. Algur, Niharika Kumar, "**Novel Priority Based Reservation Algorithm for Admission Control in WiMAX**", *International Conference on Data Engineering and Communication Systems*, ICDECS 2011, Bangalore, December 2011, pp. 310-313.

12. Niharika Kumar, K. N. Balasubramanya Murthy, Amitkeerti M. Lagare, “**DBAM: Novel User Based Bandwidth Allocation Mechanism in WiMAX**”, *Second International Conference on Advances in Communication, Network, and Computing, CNC 2011*, Bangalore, India, Volume 142, March 2011, ISBN 978-3- 642-19541-9 (Print), ISBN 978-3-642-19542-6 (Online), pp. 229- 236.

National Refereed Journals:

1. Dhanesh Ramesh, Harshith Raju P V, Sumukh G Mahendrakar, Kishore Srinivasan, Niharika Prasanna Kumar,” **Exploring Contemporary Perspectives on the Implementation of Firewall Policies: A Comprehensive Review of Literature**”, *Indiana Journal of Multidisciplinary Research*, June 2024, Vol. 4, Issue 3, DOI: <https://doi.org/10.5281/zenodo.12679953>.
2. Chethan, Madan A M, Pannaga G N, Sharanya Murali, Niharika Prasanna Kumar,” **Identifying Counterfeit Product Using Deep Learning**”, *Indiana Journal of Multidisciplinary Research*, June 2024, Vol. 4, Issue 3, DOI: <https://doi.org/10.5281/zenodo.12679741>.

National Refereed Conferences:

1. Ashwini, Niharika Kumar, “**An Efficient Connection Admission Control Bandwidth Reservation Scheme for WiMAX Networks**”, *AMC College of Engineering*, Bangalore, 15th May, 2013.

Book Chapter

1. Siddu P. Algur, Niharika Kumar, Amitkeerti M. Lagare, **User Oriented Quality of Service Framework for WiMAX**, *Wireless Communications and Networks - Recent Advances*, *Intech Publishers*, Croatia, March 2012, ISBN 978-953-51-0189-5, pp. 405-428.

Awards and Key Contributions:

1. Won the Best Paper award titled ” **Crop Prediction and Agricultural Analysis using ML**” in National Conference on Digital Technology and Engineering organized by RV Institute of Technology and Management on 28th-29th April 2023.
2. Won the Best Paper award titled “**A Blockchain-Based Secure and Sustainable Electronic Healthcare Record System**” in the All India Paper Writing Competition on Emerging Research (PaCER) July 2020.

3. Initiated and Signed MoU between BNMIT and Metamor Technologies as a part of Industry – Institution Interaction, 2020.
4. Participated in Faculty Enablement Program on “Python Programming through INFYTQ Platform” organized by Infosys Ltd. from 6th-13th July 2020 and awarded with “A+” Grade.
5. Received DST Travel grant (Rs.62,996) to present IEEE paper in Malaysia in the year 2013.

Session Chair/Research Paper Reviewer:

1. External Session Chair and reviewer for 3rd IEEE International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics organized by Department of EEE and ECE, BNMIT Bengaluru held on 16th and 17th January 2025.
2. External Session Chair and reviewer for 2nd IEEE International Conference on Integrated Intelligence and Communication Systems organized by Sharnbasva University, Kalaburagi, 22-23 November, 2024.
3. External Session Chair and reviewer for International Conference on Intelligent Systems and Computational Networks organized by Lingraj Appa Engineering college ,Bidar, 24-25 January, 2025.
4. Information Chair in the IEEE International Conference on The Confluence of Advancements in Robotics, Vision and Interdisciplinary Technology Management IC-RVITM23 technically cosponsored by IEEE Bangalore section, organized by ,RV Institute of Technology and Management, Bengaluru on 28th and 29th November 2023.
5. Reviewer for International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT -2023) organized by RV Institute of Technology and Management ,Bengaluru, 20-21, October 2023.
6. External Session Chair for IEEE International Conference on Data Science and Network Security(ICDSNS -2023) organized by Kalpataru Institute of Technology, Tiptur, 28th - 29th July 2023.
7. Session Chair for National Conference on Digital Technology and Engineering, RVITM 28th-29th April 2023.
8. External Session Chair in the 2nd International Conference on Mobile Networks and Wireless Communications(ICMNWC-2022), organized by the Sri Siddhartha Institute of Technology, Tumakuru, India in Association with IEEE Bangalore Section on 2nd December 2022.
9. Session Chair at the International Conference on "Expert Clouds and Applications(ICOECA 2022) "organized by Department of CSE/ISE and Department of ECE, RV Institute of Technology and Management, Bengaluru, India held on 3-4, February 2022.
10. External Session Chair in the IEEE International Conference on Integrated Circuit and Communication Systems(ICICACS-2023), organized by H.K.E Society's SLN College of Engineering, Raichur India in Association with IEEE Bangalore Section and North-Karnataka sub-section on 24-25 February 2023.

11. Reviewer for IEEE MYSURUCON 2022-The 2nd Edition of the Mysore Subsection Flagship International Conference on 16th & 17th October 2022.
12. IEEE Reviewer for the 3rd IEEE International Conference on Electrical, Electronics, Communications, Computer Technologies and Optimization Techniques(ICEECOT) organized by GSSS Institute of Engineering and Technology for Women, Mysuru on 14th and 15th December 2018.
13. IEEE Reviewer for IEEE MYSURUCON 2021, International Conference Series of IEEE Mysore Sub Section in association with IEEE Bangalore Section at NAVKIS college of Engineering, Hassan on 24th & 25th October 2

Invited Talk:-

1. Conducted workshop on Deep Learning organized at Bahubali College of Engineering on 13th May 2025.
2. Invited Talk as a Resource Person on “Generative AI”, organized at Bahubali College of Engineering on 17th January 2024.
3. Invited Talk as a Resource Person on “Machine Learning and Artificial Intelligence”, as part of CSI Event organized at Bahubali College of Engineering on 3rd December 2022.
4. Was part of Resource Person in the Internship Programme on “Optimized Problem Solving using Java”, organized by Dept. of ISE,RVITM during 10th -30th October 2022.
5. Delivered a lecture on “Design and Analysis of Algorithms” at Bahubali College of Engineering on 5th May 2012.
6. Conducted three days training program on Soft Skills for faculties in BNMIT under Peer Enablement program during Aug 31st – Sep 2nd,2020

Workshops/ FDP Program Organized:

1. Organized an FDP on – “Cyber Security as per VTU 4th sem syllabus BCY402 and BICL404”, on 1st,2nd and 3rd April 2024 at RVITM by Mr. Samarth Bhaskar Bhat, Technical Director, Reverse Engineering Infosec.
2. Faculty Coordinator and Jury Member for Hackathon on "Road Safety", organized in RV Institute of Technology and Management in collaboration with Toyota Kirloskar Motor Pvt. Ltd on 3rd and 4th February 2024..
3. Organized a 5 Day workshop on – “Cyber Security and Ethical Hacking”, on 17th-21st September 2024 at RVITM by Mr. Samarth Bhaskar Bhat, Technical Director, Reverse Engineering Infosec.
4. Organized an Inter RV Institution event – RVIT Model United Nations Society 2024 (MunSoc) on 28th and 29th November 2024 at RVITM.

5. Organized a Workshop on – “Computer Vision using Cloud”, at RVITM on 16th and 17th August 2023 by Mr. Naman Sinha, Software Engineer, Fractal Bengaluru
6. Organized an Advanced Workshop on – “Cyber Security and Ethical Hacking”, on 13th, 14th and 15th June 2023 at RVITM by Mr. Samarth Bhaskar Bhat, Technical Director Director, Reverse Engineering Infosec.
7. Organized a 5 Day FDP on "Importance of Data Science in Machine Learning and it's Applications" from 6th-10th February 2023 at RVITM.
8. Organized a Workshop on – “Cyber Security and Ethical Hacking”, on 10th-12th November 2023 at RVITM by Mr. Samarth Bhaskar Bhat, Technical Director Director, Reverse Engineering Infosec.
9. Organized a Technical Talk on “Cyber Security and it’s opportunities” , on 14th Dec 2023 at RVITM by Mr. Samarth Bhaskar Bhat, Technical Director Director, Reverse Engineering Infosec.
10. Organized a Technical Seminar on “Interviews Made Easy” , at RVITM on 26th May 2023 by Mr. Naman Sinha, Software Engineer, Fractal Bengaluru.
11. Organized Two-day workshop on “Advanced WebApp Full Stack Development” at RVITM on 8th and 9th April, 2022.
12. Organized a Webinar on “Edge Computing” on 18th June, 2021 under CSI-BNMIT Student Chapter.
13. Organized Two-day workshop on “Cloud Computing” at BNMIT on 30th and 31st May, 2021 under CSI - BNMIT Student Chapter.
14. Organized Two-day workshop on “Cyber Safety” at BNMIT on 18th and 19th January, 2021 under CSI - BNMIT Student Chapter.
15. Organized One day workshop on “Modern Methods in Machine Intelligence” at BNMIT on 10th November, 2020 under CSI - BNMIT Student Chapter.
16. Organized Two Days Webinar on “Industry Based Emerging Technologies” in association with Metamor Technologies Bengaluru on 18th and 19th June, 2020 under CSI-BNMIT Student Chapter.
17. Organized Two-day workshop on “Node.js and Express Development with MongoDB” at BNMIT on 6th and 7th March, 2020 under CSI - BNMIT Student Chapter.
18. Organized Two-day workshop on “Circuit Prototyping” at BNMIT on 20th and 21st September, 2019 under CSI - BNMIT Student Chapter.
19. Organized Two-day workshop on “Application development using Microservices Architecture” at BNMIT on 25th and 26st October, 2019 under CSI - BNMIT Student Chapter.
20. **Convener** of Faculty Development Program on “Research Frontiers in Networking – A Tool Driven Approach” organized by Dept. of Computer Science & Engineering, BNMIT, Bengaluru from 16th to 21st January, 2017.
21. **Member** of the **Organizing Committee** in the 2nd International Conference on Data Engineering and Communication Systems jointly organized by Dept. of Computer Science & Engg. and Information Science & Engg, RNSIT during 28th-29th December 2015.

MoU/Club

1. Initiated a Club and MoU on Cyber Security and Ethical Hacking with expert from Industry, Mr. Samarth Bhaskar Bhat, Technical Director ,Reverse Engineering Infosec.
2. Initiated a Club RVITM-MUNSOC - Model United Nations Society.
3. Entrepreneurship Cell Head of RV Institute of Technology and Management

Professional Membership:

1. Life member of Computer Society of India, Membership No: I1505633.
2. Life member of The Indian Society for Technical Education, Membership No: LM 133029.
3. IEEE member, Membership No: 100010291