

Dr. Monika

Associate Professor

Department of Computer Science & Applications

Kurukshetra University, Kurukshetra (Haryana), India

Email: monikaporiye@kuk.ac.in

Orcid Id: 0000-0002-2691-8990

H-index: 7

Academic Profile

Dedicated academician and researcher with extensive experience in teaching, research, and curriculum development in Computer Science & Applications.

Professional Qualification

- Doctorate on “Realization of DNA Congruous Approach for Secure Data Generation & Communication in Wireless Sensor Networks” under the supervision of Prof. (Dr.) Shuchita Upadhyaya, Department of Computer Science and Applications, Kurukshetra University Kurukshetra.
- Masters in Technology (M.Tech.) in Software Engineering (2009) from Kurukshetra University Kurukshetra
- Masters in Computer Science(S/w) in 2007 from Kurukshetra University Kurukshetra.
- Bachelor of Science in 2005 from Kurukshetra University Kurukshetra.

Achievements

- Qualified UGC-NET in 2008
- First appointment as an Assistant Professor in National Defense Academy(NDA), Pune, Khadakwasla

Work Experience

Working as a faculty member in the Department of Computer Science and Applications, Kurukshetra University Kurukshetra for the past 15 years teaching at Post Graduation level.

Area of Interest

Security in Computing, Information Security, Web Technology, Machine Learning and Blockchain.

Ph. D. Supervision

Presently five research scholars enrolled under Ph. D. programme.

Others

- Delivered many lectures as Resource Person in various institute.
- Organized various workshops/events in department.
- Published various research papers in various International conferences, Scopus indexed journal and SCI.

List of Publications:

1. K. K. Duhan, Monika, "An Improved PCA Based Approach to perform Facial Expression Based Recognition", International Conference on Emerging Trends in Engineering & Management (ICETEM), 23-24 June, 2012.
2. Monika , R. Soni "Using Visual Cryptography" National conference on Advanced Computing Technologies, Volume 1, March 30, 2013. (booklet in office).
3. Monika , J. Thalor "A Novel Approach for Detection and Prevention of Wormhole Attack In Ad-hoc Networks" International Journal of Computer Trends and Technology (IJCTT), volume 4, Issue 5, May 2013, 1171-1176. (ISSN: 2231-2803).
4. "Virtual Private Network - A Review" ,Monika, Swati Kapoor in National conference on Advanced Computing Technologies. volume 1, March 30, 2013.
5. Monika, R. Soni "Hybridization of Symmetric Key Encryption and Visual Cryptography" International Journal of Computer Trends and Technology (IJCTT), volume 4, Issue 5, May 2013. (ISSN no.- 2231-2803).
6. Manju, Monika "Steganography: The Art of Hiding Text in Image Using Matlab" International Journal of Advanced Research in Computer Science, Volume 4, No. 8, May-June 2013. (ISSN 0976-5697).
7. J. Thalor, Monika "Wormhole Attack Detection and Prevention Technique in Mobile Ad Hoc Networks: A Review" International Journal of Advanced Research in Computer Science and Software Engineering, Volume 3, Issue 2, 137-142, February 2013. (2277 128X).
8. Monika, S. Kapoor "Mitigating DoS Attack in VPN" International Journal of Computer Trends and Technology (IJCTT), volume 4, Issue 5, May 2013. (ISSN: 2231-2803).

9. Jyoti Thalor and Monika, "Wormhole Attack Detection and Prevention Technique in Mobile Ad Hoc Networks: A Review", International Journal of Advanced Research in Computer Science and Software Engineering, 3(2), 137-142 (2013) ISSN: 2277 128X.
10. Monika, Shuchita Upadhyaya "Secure communication using DNA cryptography with secure socket layer (SSL) protocol in wireless sensor networks", presented in 4th International Conference on Eco-friendly Computing and Communication Systems and published in (Elsevier) Procedia Computer Science 70 (2015) 808 – 813.
11. Monika, Shuchita Upadhyaya "DNA based cryptography for Security in Wireless Sensor Networks", presented in CSI-2015 50th Golden Jubilee Annual Convention on Digital Life and published in proceeding of Springer (under process).
12. E. Kumari, Monika "A REVIEW ON TASK SCHEDULING ALGORITHMS IN CLOUD COMPUTING" , International Journal of Science, Environment and Technology, Vol. 4, No 2, 2015, 433 – 439, ISSN 2278-3687 (O)
13. Smita Sharma, Monika "Variation in Selection Operator of Genetic Algorithm to Optimize TSP" ,International Journal of Emerging Technologies in Computational and Applied Sciences (IJETCAS), Vol. 12, No. 2, March-may, 2015, 111-114, ISSN (Online): 2279-0055.
14. Monika "A Comparative Study on Modern Cryptography and DNA Cryptography" National Conference on Emerging Computing Technologies and ICT for Development-2015, MDU rohtak.
15. Nisha Saini and Monika "Churn Prediction in Telecommunication Using Classification Techniques Based on Data Mining: A Survey", International Journal of Advanced Research in Computer Science and Software Engineering, 5(3), 842-845 (2015) ISSN: 2277 128X.
16. Monika Poriye and Shuchita Upadhyaya, "Improved Security using DNA Cryptography in Wireless Sensor Networks" , International Journal of Computer Applications, Vol. 155, No 13, 2016, 32 – 35, ISSN 0975 – 8887 .
17. Monika Poriye and Shuchita Upadhyaya, "HYBRID CRYPTOSYSTEM WITH DNA BASED KEY FOR WIRELESS SENSOR NETWORKS", International Journal of Wireless & Mobile Networks (IJWMN), Vol. 8, No. 6, December 2016, 19-26.

18. Monika "A Comparative Study on Modern Cryptography and DNA Cryptography" National Conference on Emerging Computing Technologies and ICT for Development- 28 feb,2015, MDU rohtak.

19. Manpreet Kaur, Monika " A Review on Sentiment Analysis" in Two days National Seminar on Data Handling Techniques: Application in Information Technology in Deaprment of computer science, Gandhi Memorial National (P.G.) college, Ambala Cantt, March 04-05,2016.

20. E. Kumari, Monika "A REVIEW ON TASK SCHEDULING ALGORITHMS IN CLOUD COMPUTING" , International Journal of Science, Environment and Technology, Vol. 4, No 2, 2015, xx – xx, ISSN 2278-3687 (O).

21. Smita Sharma, Monika "Variation in Selection Operator of Genetic Algorithm to Optimize TSP" ,International Journal of Emerging Technologies in Computational and Applied Sciences (IJETCAS), Issue 12, Volume 2, March-May, 2015, pp. 111-114 ISSN (Online): 2279-0055.

22. Shubhangi Arora, Monika and Vinod Kumar "An Efficient Method for Secure Data Storage and Updation using Additive Homomorphic Encryption on the Cloud" International Journal of Advanced Research in Computer Science and Software Engineering, Volume 6, Issue 5, May 2016,pp 832-838. (ISSN: 2277 128X).

23. Shubhangi Arora, Monika and Vinod Kumar "Homomorphic Encryption for Secure Data Storage on the Cloud" International Journal of Advanced Research in Computer Science and Software Engineering, Volume 6, Issue 5, May 2016,pp 270-275.(ISSN: 2277 128X).

24. Neha Yadav, Monika and Vinod Kumar "A Novel Approach Based on Fingerprint Identification and Face Recognition" International Journal of Advanced Research in Computer Science, Volume 7, No. 3, May-June 2016, pp-222-229. (ISSN No. 0976-5697).

25. Pooja and Monika, "User and Database Level SQL Injection Prevention Techniques", International Journal for Scientific Research & Development, Vol.4, Issue 04, 2016, ISSN (online): 2321-0613.

26. Manpreet Kaur and Monika "Sentiment Analysis using Optimal Feature and Ensemble Classifier", International Journal for Scientific Research & Development, 4 (04), 964-966 (2016) ISSN (online): 2321-0613.

27. Pooja and Monika, "SQL injection: Detection and Prevention Techniques", International Journal of Scientific & Engineering Research, 7(12), 241-248 (2016) ISSN: 2229-5518.

28. Preeti Sharma and Monika, "Database security: Attacks and Techniques", International Journal of Scientific & Engineering Research, 7(12), 313-319 (2016) ISSN: 2229-5518.

29. Shubhangi Arora, Monika and Vinod Kumar, "Review of Homomorphic Encryption on cloud for secure Data Storage", International Journal of Scientific & Engineering Research, 7(12), 411-416 (2016), ISSN: 2229-5518.

30. Neha and Monika, "A review of Advancement in Multimodal Biometric System", International Journal of Scientific & Engineering Research, 7(12), 241-248 (2016) ISSN: 2229-5518.

31. Poriye M., Upadhyaya S. DNA-Based Cryptography for Security in Wireless Sensor Networks. In: Bokhari M., Agrawal N., Saini D. (eds) Cyber Security. Advances in Intelligent Systems and Computing, vol 729. Springer, Singapore, (2018).

32. Smita Sharma and Monika "Variation in Selection Operator of Genetic Algorithm to Optimize TSP", International Journal of Emerging Technologies in Computational and Applied Sciences (IJETCAS), 2(12), 111-114 (2015) ISSN: 2279-0055.

33. A DNA Based Framework for Securing Information Using Asymmetric Encryption. *Wireless Pers Commun* 129, 1717–1733 (2023). <https://doi.org/10.1007/s11277-023-10203-y>

34. Improvisation in Opinion Mining Using Negation Detection and Negation Handling Techniques: A Survey. In: Kumar, R., Verma, A.K., Sharma, T.K., Verma, O.P., Sharma, S. (eds) Soft Computing: Theories and Applications. Lecture Notes in Networks and Systems, vol 627. Springer, Singapore.

35. Improvisation in opinion mining using data preprocessing techniques based on consumer's review in International Journal of Advanced Technology and Engineering Exploration; Bhopal Vol. 10, Iss. 99, (Feb 2023): 257-277. DOI:10.19101/IJATEE.2021.875886.

36. Assessing the efficacy of a novel adaptive fuzzy c-means (AFCM) based clustering algorithm for mobile agent itinerary planning in wireless sensor networks using validity indices. *Peer-to-Peer Netw. Appl.* 17, 2371–2383 (2024). <https://doi.org/10.1007/s12083-024-01695-x>.

37. DNA-SKA: a DNA congruous secure symmetric key generation algorithm in *International Journal of Applied Management Science* Vol. 15, No. 2

38. Improving Sentiment Analysis using Negation Scope Detection and Negation Handling in *International Journal of Computing and Digital Systems* ISSN (2210-142X) *Int. J. Com. Dig. Sys.* 16, No.1 (Jul-24)

39. [Hybrid Classification Model for Network Traffic Density Estimation](#) in 2023 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)

40. Fuzzy Logic and Machine Learning Integration: Enhancing Healthcare Decision-Making . *International Journal of Computer Information Systems and Industrial Management Applications*, 16(3).

41. A Comparative Study of Supervised and Unsupervised Machine Learning Algorithms on Consumer Reviews," 2022 IEEE World Conference on Applied Intelligence and Computing (AIC), Sonbhadra, India, 2022, pp. 598-603, doi: 10.1109/AIC55036.2022.9848880.

42. Optimizing blockchain mining techniques through the application of machine learning, Book- Artificial Intelligence and Information Technologies Volume 1, Taylor & Francis eBooks, eBook ISBN9781032700502, eBook Published 31 July 2024. <https://doi.org/10.1201/9781032700502>, Imprint CRC Press.

43. Performance evaluation of supervised machine learning algorithms for classification in IoT. *Artificial Intelligence and Information Technologies*.

44. Threshold-based Multi-Crop Recommendation: A Flexible Decision Layer for AI in Precision Agriculture in *GRENZE International Journal of Engineering and Technology (GIJET)* ISSN No: 2395-5295 (Online).

45. Encoder-decoder model with attention mechanism for sarcasm interpretation on social media text in *International Journal of Information Technology*. <https://doi.org/10.1007/s41870-025-02530-z>.

46. A Simple Survey on Blockchain technology to ensure the Security in International Journal of Emerging Technologies and Innovative Research, April 2025, Volume 12, Issue 4. ISSN:2349-5162.

47. Integration of Blockchain in Smart Internet of Things to Resolve Security and Privacy Issue via Consensus Algorithms in Proceeding of 7th International conference on AI Technologies for Information Systems and Management Science, ISMS 2025. https://doi.org/10.1007/978-3-031-95017-9_45.

48. Detecting Flood and Flood-Affected Regions in Wayanad Kerala via Satellite Imagery Lecture Notes in Networks and Systems, vol 1479. Springer, Cham. https://doi.org/10.1007/978-3-031-95017-9_39.

49. A Review of Blockchain-Based Solutions to Internet of Things (IoT) Security Challenges in Proceedings of the 3rd International Conference on Artificial Intelligence, Machine Learning and Cybersecurity: Vol. 7 No. 6 (2025). DOI: <https://doi.org/10.21467/proceedings.7.6.55>.

50. Automating University Administration: A Systematic Review of Chatbot Applications in Higher Education in Proceedings of the 3rd International Conference on Artificial Intelligence, Machine Learning and Cybersecurity: Vol. 7 No. 6 (2025). DOI: <https://doi.org/10.21467/proceedings.7.6.55>.

51. Sangeeta, S. Upadhyaya, M. Poriye and A. Ashgarh Khaveri, "Artificial Intelligence Algorithms for Natural Disaster Management: Survey, Challenges," 2025 7th International Conference on Information Systems and Computer Networks (ISCON), Mathura, India, 2025, pp. 1-7, doi: 10.1109/ISCON65210.2025.11341582.