Faculty Profile

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About Me

Dr. S. Kuzhalvaimozhi has been associated with the institution since 2001 and has served in various academic and administrative roles. She completed her Ph.D. in 2017 and has been actively involved in teaching, research, and academic administration. She is currently guiding four Ph.D. scholars and has guided more than 20 M.Tech projects.

She has held several leadership positions including Head of the Department of ISE, Head of IQAC, Chairman of the NBA Committee, and Member Secretary of the Academic Council. She currently serves as the Controller of Examinations and has contributed to institutional committees such as ERC, NAAC, BOS, BOE, and IQAC.

Her research interests include Network Security, Machine Learning, and Compilers, focusing on secure communication protocols, intelligent data analysis, and program translation techniques. She has published over 30 research papers, including 13 indexed in Scopus/SCI journals. Her teaching areas span core subjects in computer science and engineering, including programming, operating systems, database systems, cybersecurity, and theoretical foundations of computing.

Qualification:

B.E. (Bharathidasan Univ.), ME (PSG Tech), Ph.D. (VTU, Belagavi)

Courses Taught:
- Cyber Security
- Operating Systems
- Object Orientated Programming with Java
- Theory of Computations
- Database Management systems
- Cryptography and Network Security

Publications

Journal Publications

1. Padmini, M. S., **Kuzhalvaimozhi, S.**, et al. (2025): "Multiagent Heuristic and Knowledge-Driven Routing Optimization Model for Internet of Things Applications", International Journal of Communication Systems, Vol. 38, No. 10. (WoS-SCIE, Scopus Q2)

2. Bharadwaj, R. S., **Kuzhalvaimozhi, S.**, and Vedavathi, N. (2025): "Denigration Analysis of Twitter Data Using Cyclic Learning Rate Based Long Short-Term Memory", International Journal of Electrical and Computer Engineering, Vol. 15, No. 1, pp. 700–710. (Scopus Q2)

3. Srikantha, P. M., **Kuzhalvaimozhi, S.**, et al. (2025): "A Hybrid Approach for Hotspot Problem Using Load Balancing and Advanced Ant Colony Optimization in Wireless Sensor Networks", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 37, No. 3, pp. 1865–1873. (Scopus Q3)

4. Padmini, M. S., **Kuzhalvaimozhi, S.**, et al. (2024): "An Enhanced Process Scheduler Using Multi-Access Edge Computing in an IoT Network", International Journal of Computer Network and Information Security, Vol. 16, No. 4, pp. 130–142. (Scopus Q3)

5. Padmini, M. S., **Kuzhalvaimozhi, S.** (2024): "Energy and Delay Aware Routing Model for Smart Crop Monitoring Application Using Internet of Things", Computers & Electrical Engineering, Vol. 116. (Scopus Q1)

6. Srikantha, P. M., **Kuzhalvaimozhi, S.**, et al. (2023): "Energy Aware Reliable Routing Model for Sensor Network Enabled Internet of Things Environment", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 32, No. 3, pp. 1678–1685. (Scopus Q3)

7. Padmini, M. S., **Kuzhalvaimozhi, S.** (2023): "Critical Analysis of Life Span Improvement Techniques in Energy Constrained Edge IoT Devices", SN Computer Science, Vol. 4, No. 3. (Scopus Q2)

8. Manasa, U., **Kuzhalvaimozhi, S.** (2023): "A Comprehensive Review on Intrusion Detection Systems Using Machine Learning", Grenze International Journal of Engineering and Technology, Vol. 9, No. 2, pp. 1291–1297. (Peer-Reviewed Journal)

9. Jayashree, N., **Kuzhalvaimozhi, S.** (2021): "Smart LPG Gas Monitoring and Automatic Booking with Alert System", International Research Journal of Engineering and Technology, Vol. 8, No. 6, pp. 2166–2170. (Peer-Reviewed Journal)

10. **Kuzhalvaimozhi, S.**, and Mundra, N. (2021): "Text Summarizer Using Natural Language Processing", Design Engineering, pp. 467–473. (Indexed Journal)

11. Karthik, B. V., **Kuzhalvaimozhi, S.** (2019): "Ambulance Detection and Traffic Control System", International Research Journal of Engineering and Technology, Vol. 6, No. 4, pp. 1128–1134. (Peer-Reviewed Journal)

12. Deepika, M., **Kuzhalvaimozhi, S.** (2017): "Usage of CP-ABE with Vein Pattern Matching for Secure Transmission of Data in Military Networks", International Research

Journal of Engineering and Technology, Vol. 4, No. 5, pp. 1606–1610. (Peer-Reviewed Journal)

13. Acharya, C., **Kuzhalvaimozhi, S.** (2016): "Irrigation and Internet of Things Platform", International Research Journal of Engineering and Technology, Vol. 3, pp. 1643–1646. (Peer-Reviewed Journal)

14. Ranjan, A., Jeevan, J. M., Chaudhary, P., Pavana, P. S., **Kuzhalvaimozhi, S.** (2015): "Hand Gesture Recognition System Using Histogram and Neural Network", International Journal on Recent and Innovation Trends in Computing and Communication, Vol. 3, No. 4, pp. 2377–2382. (Peer-Reviewed Journal)

15. Sagar, S., **Kuzhalvaimozhi, S.** (2015): "Web Application for Voice Operated Email Exchange", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, No. 5, pp. 595–598. (Peer-Reviewed Journal)

16. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2014): "Performance Comparison of Efficient Identity Based Signature Schemes", International Journal of Innovative Research in Computer Science and Technology, Vol. 2, No. 6, pp. 28–32. (Peer-Reviewed Journal)

17. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2014): "Public Key Encryption Without Using Certificate Based on Identity Based Cryptography", International Journal of Scientific Engineering and Technology, Vol. 3, No. 2, pp. 139–143. (Peer-Reviewed Journal)

18. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2013): "Generation of Anonymous Signature and Message Authentication Using Identity Based Cryptography", International Journal on Network Security, Vol. 4, No. 1, pp. 6–10. (Peer-Reviewed Journal)

Conference Proceedings
1. Supriya, S., **Kuzhalvaimozhi, S.** (2024): "ML Tool to Identify the Correlation Between Student Mental Factors and Their Performances", 2024 OITS International Conference on Information Technology, pp. 397–401. (IEEE Conference, IEEE Xplore)

2. Bharadwaj, R. S., **Kuzhalvaimozhi, S.**, Vedavathi, N. (2023): "A Novel Multimodal Hybrid Classifier Based Cyberbullying Detection for Social Media Platform", Computational Methods in Systems and Software, Springer, pp. 689–699. (Springer Conference, Scopus Indexed)

3. Padmini, M. S., **Kuzhalvaimozhi, S.**, et al. (2022): "Energy Efficient Smart Street Lighting System", International Conference on Artificial Intelligence and Data Engineering (AIDE), IEEE. (IEEE Conference, IEEE Xplore, Scopus Indexed)

4. Abhilash, N., **Kuzhalvaimozhi, S.** (2016): "Random Route Adoption Algorithm to Provide Source Location Privacy in Wireless Sensor Network", Emerging Research in Computing, Information, Communication and Applications, Springer AISC, pp. 27–35. (Springer Conference, Scopus Indexed)

5. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2014): "Privacy Protection in Cloud Using Identity Based Group Signature", International Conference on Applications of Digital Information and Web Technologies (ICADIWT), IEEE, pp. 75–80. (IEEE Conference, Scopus Indexed)

6. Padmini, M. S**., Kuzhalvaimozhi, S.,** Simha, P. V., Singh, P., and Abhinandan, A. (2022): "An Implementation of Gesture-Controlled Autonomous Drone," *Proceedings of the 2nd International Conference on Smart Technologies, Communication and Robotics (STCR 2022)*, IEEE, 2022.DOI: **10.1109/STCR55312.2022.10009421 (IEEE Conference, Scopus Indexed)**

7. Praveen, S**., Kuzhalvaimozhi, S. (2023):** "Tamperproof Health Information Exchange System Using Blockchain",*Proceedings of the International Conference on Recent Trends in Engineering, Science and Technology*, 2023.

8. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2012): "Efficient Scheme for Anonymous Authentication Using Identity Based Group Signature", International Conference on Recent Trends in Communication and Computing, pp. 139–142.

9. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2011): "Identity Based Cryptosystem: A New Paradigm in Public Key Infrastructure", International Conference on Computing and Communication Systems, pp. 336–341.

10. **Kuzhalvaimozhi, S.**, and Raghavendra Rao, G. (2011): "Online and Offline Web Security Using Identity Based Cryptosystem: A Survey", International Conference on Advances in Computing.

Text Books
Nil

Book Chapters
1. Bharadwaj, R. S., **Kuzhalvaimozhi, S.**, and Vedavathi, N. (2023): "A Novel Multimodal Hybrid Classifier Based Cyberbullying Detection for Social Media Platform", in Data Science and Algorithms in Systems, Springer. (Book Chapter, Scopus Indexed)

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