Dr.A.Kannan, Senior Professor, Department of Database Systems, School of Computer Science and Engineering, VIT, Vellore-632014.

Email: kannan.a@vit.ac.in

**Mobile:** 9444231185

## LIST OF PUBLICATIONS

- 1. Viswanathan,S & Kannan,A 2019, 'Elliptic Key Cryptography with Beta Gamma Functions for Secure Routing in wireless Sensor Networks', Wireless Networks, Springer Publication. vol.25, no.8, pp.4903-4914.(Impact Factor 2.405)
- 2. Ganesan Sangeetha, Muthuswamy Vijayalakshmi, Sannasi Ganapathy, Arputharaj Kannan, 2020, 'An improved congestion-aware routing mechanism in sensor networks using fuzzy rule sets', Peer Peer Netw. Appl, vol. 13, no 3, pp.890-904.
- 3. Logambigai, R & Kannan, A 2016, 'Fuzzy logic based unequal clustering for wireless sensor networks', Wireless Networks, vol. 22, no. 3, pp. 945-957.
- 4. Logambigai, R, Ganapathy, S & Kannan, A 2018, 'Energy-efficient grid-based routing algorithm using intelligent fuzzy rules for wireless sensor networks', Computers & Electrical Engineering, vol. 68, pp. 62-75.
- 5. Muthurajkumar, S, Ganapathy, S, Vijayalakshmi, M & Kannan, A 2017, 'An Intelligent Secured and Energy Efficient Routing Algorithm for MANETs', Wireless Personal Communications, vol. 96, no. 2, pp. 1753-1769.
- 6. Vijayakumar P, Azees M, Kannan A and Jegatha Deborah L, "Dual Authentication and Key Management Techniques for Secure Data Transmission in Vehicular Ad Hoc Networks," in IEEE Transactions on Intelligent Transportation Systems, vol. 17, no. 4, pp. 1015-1028, 2016.
- 7. Balakrishnan Senthilnayaki, K. Venkatalakshmi, Arputharaj Kannan, "Intrusion detection system using fuzzy rough set feature selection and modified KNN classifier", International Arab Journal of Information Technology, vol16, no. 4, pp. 746-753, 2019.
- 8. Sannasi Ganapathy, Pandi Vijayakumar, Yogesh Palanichamy, Arputharaj Kannan,"An intelligent CRF based feature selection for effective intrusion detection", International Arab Journal of Information Technology, vol 13, no. 1, pp. 44-50, 2016.

- 9. Selvakumar.K, Sairamesh.L, Kannan.A,"Wise intrusion detection system using fuzzy rough set-based feature extraction and classification algorithms", International Journal of Operational Research, Vol. 35, No. 1, pp. 87-107, 2019.
- 10. Rajeswari.AR, Kulothungan.K, Ganapathy.S, Kannan.A,'A trusted fuzzy based stable and secure routing algorithm for effective communication in mobile adhoc networks', Peer-to-Peer Networking and Applications, Vol 12, No 5, pp.1076-1096, 2019.
- 11. Selvi, M, Thangaramya, K, Sannasi Ganapathy, Kanagasabai Kulothungan, Khannah Nehemiah, H & Arputharaj Kannan, 'An Energy Aware Trust Based Secure Routing Algorithm for Effective Communication in Wireless Sensor Networks', Wireless Personal Communications, vol. 105, no. 4, pp. 1475–1490, 2019.
- 12. Thangaramya, K, Kulothungan, K, Indira Gandhi, S, Selvi, M, Santhosh Kumar, SVN & Kannan, A 2020, 'Intelligent fuzzy rule-based approach with outlier detection for secured routing in WSN', Soft Computing, Springer, <a href="https://doi.org/10.1007/s00500-020-04955-z">https://doi.org/10.1007/s00500-020-04955-z</a>.
- 13. Rakesh Rajendran, S. V. N. Santhosh Kumar, Yogesh Palanichamy, Kannan Arputharaj, "Detection of DoS attacks in cloud networks using intelligent rule based classification system", Cluster Computing, Vol.22, Suppl 1, pp. 423-434, 2019.
- 14. Pandiyaraju, V, Logambigai, R, Ganapathy, S & Arputharaj Kannan 2020, 'An Energy Efficient Routing Algorithm for WSNs Using Intelligent Fuzzy Rules in Precision Agriculture', Wireless Personal Communications, vol. 112, pp. 243–259.
- 15. Sannasy Muthurajkumar, Muthuswamy Vijayalakshmi, Arputharaj Kannan,2017, 'Secured Data Storage and Retrieval Algorithm Using Map Reduce Techniques and Chaining Encryption in Cloud Databases', Wireless Personal Communications, vol. 96, no. 4, pp.5621-5633.
- 16. Selvi.M, Nandhini.C, Thangaramya.K, Kulothungan.K and Kannan.A, 2017, 'HBO based clustering and energy optimized routing algorithm for WSN,' Eighth International Conference on Advanced Computing (ICoAC), Chennai, pp. 89-92
- 17. Selvi, M, Velvizhy, M, Ganapathy, S, Nehemiah, HK & Kannan, A 2019b, 'A rule based delay constrained energy efficient routing technique for wireless sensor networks', Cluster Computing, vol. 22, pp. 10839-10848.
- 18. Selvi Munuswamy, Jothi Muneeswari Saravanakumar, Ganapathy Sannasi, Khanna Nehemiah Harichandran & Kannan Arputharaj 2018, 'Virtual force-based intelligent clustering for energy-efficient routing in mobile wireless sensor

- networks', Turkish Journal of Electrical Engineering & Computer Sciences, vol. 26, no. 3, pp. 1444-1452.
- 19. Selvi, M, Logambigai, R, Ganapathy, S, Ramesh, LS, Nehemiah, HK & Kannan, A 2016, 'Fuzzy Temporal Approach for Energy Efficient Routing in WSN', Proceedings of International Conference on Informatics and Analytics, ACM, pp. 117:1-117:5.
- 20. P. Velvizhy, A. Pravi, M. Selvi, Sannasi Ganapathy, Arputharaj Kannan:," Fuzzy-based review rating prediction in e-commerce", International Journal of Business Intelligence and Data Mining, vol 17, no 1, pp 101-116, 2020.
- 21. Sankar Pariserum Perumal, Ganapathy Sannasi, Kannan Arputharaj,"REFERS: refined and effective fuzzy e-commerce recommendation system", International Journal of Business Intelligence and Data Mining, vol 17, no.1, pp 117-137, 2020.
- 22. Sankar Pariserum Perumal, Sannasi Ganapathy, Kannan Arputharaj, "An intelligent fuzzy rule-based e-learning recommendation system for dynamic user interests", Journal of Super Computing, vol 75, no 8, pp.5145-5160,2019.
- Thangaramya, K, Kulothungan, K, Logambigai, R, Selvi, M, Sannasi Ganapathy & Kannan, A 2019, 'Energy aware cluster and neuro-fuzzy based routing algorithm for wireless sensor networks in IoT', Computer Networks, Elsevier, vol. 151, pp. 211 223.
- 24. Thangaramya Kalidoss, Logambigai Rajasekaran, Kulothungan Kanagasabai, Ganapathy Sannasi & Arputharaj Kannan 2020, 'QoS Aware Trust Based Routing Algorithm for Wireless Sensor Networks', Wireless Personal Communications, vol. 110, no. 4, pp. 1637 1658.
- 25. Ruby Dass, Vijayalakshmi Muthuswamy, Kannan A 2017, 'Intelligent relay selection and spectrum sharing techniques for cognitive radio networks', Cluster Computing, Vol 22, No 5, pp 10537-10548, 2019.
- 26. Velumadhava Rajasekaran, Selvamani Kadirvelu, Kanimozhi Sakthivel, Arputharaj Kannan,"Hierarchical group key management for secure data sharing in a cloud-based environment", Concurruncy and Computation Practice and Experience, vol 31, no.12, 2019.
- 27. Kanimozhi Sakthivel, Arputharaj Kannan, K. SuganyaDevi, Selvamani Kadirvelu, "Secure cloud-based e-learning system with access control and group key mechanism", Concurrency and Computation Practice and Experience, vol 31, no 12, 2019.

- 28. K. Geetha, Arputharaj Kannan," An Efficient Information System for Providing Location Based Services in Network Environments", Wireless Personnel Communications, vol 109, no 4, pp.2377-2398, 2019.
- 29. G. Saranya, Harichandran Khanna Nehemiah, Arputharaj Kannan,"Hybrid particle swarm optimisation with mutation for code smell detection", International Journal of Bio Inspired Computing, vol 12, no 3, pp 186-195, 2018.
- 30. Rajasekar Logambigai, Arputharaj Kannan,"Energy conservation routing algorithm for wireless sensor networks using hybrid optimisation approach", International Journal of Communication Networks and Distributed Systems, Vol 20, No 3, pp 352-371, 2018.
- 31. Thangaramya Kalidoss, Sannasi Ganapathy, Sairamesh Lakshmanan, Kanagasabai Kulothungan, Arputharaj Kannan, "Data anonymisation of vertically partitioned data using Map Reduce techniques on cloud", International Journal of Communication Networks and Distributed Systems, Vol 20, No 4, pp 519-531, 2018.
- 32. K. Geetha, Arputharaj Kannan, "Efficient spatial query processing for KNN queries using well organised net-grid partition indexing approach", International Journal of Data Mining, Modelling and Management, vol 10, no 4, pp.331-352, 2018.
- 33. N Leema, H Khanna Nehemiah, Arputharaj Kannan, "Neural network classifier optimization using differential evolution with global information and back propagation algorithm for clinical datasets", Applied Soft Computing, 49, pp 834-844, 2016.
- 34. Y. Nancy Jane, Harichandran Khanna Nehemiah, Arputharaj Kannan, "A Q-backpropagated time delay neural network for diagnosing severity of gait disturbances in Parkinson's disease", Journal of Biomedical Informatics, 60: 169-176, 2016.
- 35. NY Jane, KH Nehemiah, K Arputharaj, "A temporal mining framework for classifying un-evenly spaced clinical data: an approach for building effective clinical decision-making system", Applied clinical informatics, 7(1), pp 1-21, 2016.
- 36. Angelin Gladston, Harichandran Khanna Nehemiah, Palanisamy Narayanasamy, Arputharaj Kannan, "Test case prioritization for regression testing using immune operator" International Arab Journal of Information Technology, 13(6), 2016.
- 37. K Uma, P Geetha, A Kannan, "A novel segmentation of scanned compound images using fuzzy logic", Journal of Medical Imaging and Health Informatics, 6(3), pp 763-768, 2016.

- 38. R Logambigai, S Ganapathy, A Kannan, "Energy Efficient Mid Position Opportunistic Routing for Wireless Sensor Networks", International Journal of Scientific Research in Science, Engineering and Technology, 2(2), pp 99-102, 2016.
- 39. Y. Nancy Jane, Harichandran Khanna Nehemiah, Arputharaj Kannan, "Imputing missing values in unevenly spaced clinical time series data to build an effective temporal classification framework", Computational Statistics & Data Analysis, 112: pp 63-79, 2017.
- 40. Dhalia Sweetlin J, Harichandran Khanna Nehemiah, Arputharaj Kannan, "Feature selection using ant colony optimization with tandem-run recruitment to diagnose bronchitis from CT scan images", Computer Methods and Programs in Biomedicine, Vol 145, pp115-125, 2017.
- 41. JY Nancy, NH Khanna, A Kannan, "A bio-statistical mining approach for classifying multivariate clinical time series data observed at irregular intervals", Expert Systems with Applications, 78, pp 283-300, 2017.
- 42. JD Sweetlin, HK Nehemiah, A Kannan, "Computer aided diagnosis of pulmonary hamartoma from CT scan images using ant colony optimization based feature selection", Alexandria Engineering Journal, vol 57, no 3, pp 1557-1567, 2018.
- 43. P Seenuvasan, A Kannan, P Varalakshmi, "Agent-Based Resource Management In A Cloud Environment", Applied Mathematics and Information Sciences, 11 (3), pp 777-788, 2017.
- 44. Jabez J Christopher, Harichandran Khanna Nehemiah, Kannan Arputharaj, George L Moses, "Computer-assisted Medical Decision-making System for Diagnosis of Urticaria", MDM Policy & Practice, 1(1), 2016.
- 45. Pradeep Kumar Arya, K Selvamani, A Kannan, "A SMS-Based Authentication Approach for Electronic Health Record in Cloud Environment", Journal of Medical Imaging and Health Informatics, 6(7), pp 1625-1630, 2016.
- 46. KH Nehemiah, A Gladston, A Kannan, "An optimal tabu prioritization algorithm for regression testing", Computer Systems Science and Engineering, 31(5), pp 385-392, 2016.
- 47. Kanimozhi Sakthivel, Velumadhava Rajasekaran, Selvamani Kadirvelu, Arputharaj Kannan, "Hierarchical based group key transfer for secure group communication", International Arab Journal of Information Technology, 13(5): 566-573, 2016.

- 48. Dhalia Sweetlin J, Harichandran Khanna Nehemiah, Arputharaj Kannan, "Patient-Specific Model Based Segmentation of Lung Computed Tomographic Images", Journal of Information Science and Engineering, 32(5), pp 1373-1394, 2016.
- 49. JJ Christopher, KH Nehemiah, K Arputharaj, "Knowledge-based Systems and Interestingness Measures: Analysis with Clinical Datasets", Journal of computing and information technology, 24(1), pp 65-78, 2016.
- P Prabhavathy, Sundan Bose, Arputharaj Kannan, "Energy Efficient XPath Query Processing on Wireless XML Streaming Data", Computing and Informatics, 34(6), pp 1289-1308, 2016.
- 51. K Selvakumar, L Sairamesh, A Kannan, "An Intelligent Energy Aware Secured Algorithm for Routing in Wireless Sensor Networks", Wireless Personal Communications, vol 96, no 3, pp. 4781-4798, 2017.
- 52. Kola Periyasamy, Jayadharini Jaiganesh, Kanchan Ponnambalam, Jeevitha Rajasekar, Kannan Arputharaj. (2017) Analysis and Performance Evaluation of Cosine Neighbourhood Recommender System. International Arab Journal of Information Technology (IAJIT), 14(5), 747-754.
- 53. Kanimozhi U, Manjula D, Ganapathy S, Kannan A, "An Intelligent Risk Prediction System for Breast Cancer using Fuzzy Temporal Rules", National Academy Science Letters, Vol 42, pp 227-232, 2019.
- Muthurajkumar S, Vijayalakshmi M, Ganapathy S, Kannan A, "Optimal and Energy Efficient Scheduling Techniques for Resource Management in Public Cloud Networks" National Academy Science Letters, Springer, vol 41, pp. 219-223, 2018.
- 55. Sangeetha Ganesan, Vijayalakshmi Muthuswamy, Ganapathy Sannasi, Kannan Arputharaj, "A Comprehensive Analysis of Congestion Control Models in Wireless Sensor Networks", Int. J. Strateg. Inf. Technol. Appl. 9(4): 15-37 (2018).
- 56. Sannasy Muthurajkumar, Muthuswamy Vijayalakshmi, Arputharaj Kannan,"Resource Allocation Between Temporal Cloud Database and User Using Access Control", ICIA 2016: pp.37:1-37:4.
- 57. B. Priayoheswari, Kanagasabai Kulothungan, Arputharaj Kannan, "Beta Reputation and Direct Trust Model for Secure Communication in Wireless Sensor Networks", ICIA 2016: pp.73:1-73:5.
- 58. S. Gunasekaran, L. Sai Ramesh, S. Sabena, K. Selvakumar, Sannasi Ganapathy, Arputharaj Kannan,"Dynamic Scheduling Algorithm for Reducing Start Time in Hadoop", ICIA 2016: pp.123:1-123:4.

- 59. Periasamy Nancy, Sannasy Muthurajkumar, Sannasi Ganapathy, S. V. N. Santhosh Kumar, M. Selvi, Kannan Arputharaj, 2020,' Intrusion detection using dynamic feature selection and fuzzy temporal decision tree classification for wireless sensor networks', IET Communications, Vol. 14, No.5, pp 88-895.
- 60. Prabhukavin B, Ganapathy S, Kanimozhi U, Kannan A, 2020, ''An Enhanced Security Framework for Secured Data Storage and Communications in Cloud Using ECC, Access Control and LDSA', Wireless Personal Communications, . https://doi.org/10.1007/s11277-020-07613-7, pp. 1-29.
- 61. Priya Sethuraman, Tamizharasan, PS & Kannan Arputharaj 2019, 'Fuzzy Genetic Elliptic Curve Diffie Hellman Algorithm for Secured Communication in Networks', Wireless Personal Communications, vol. 105, no. 3, pp 993–1007.
- 62. V. R. Elgin Christo, H. Khanna Nehemiah, B. Minu, Arputharaj Kannan:, "Correlation-Based Ensemble Feature Selection Using Bioinspired Algorithms and Classification Using Backpropagation Neural Network", Comput. Math. Methods Medicine 2019: 7398307:1-7398307:17 (2019).
- 63. Dhalia Sweetlin J, Harichandran Khanna Nehemiah, Arputharaj Kannan, "Computer aided diagnosis of drug sensitive pulmonary tuberculosis with cavities, consolidations and nodular manifestations on lung CT images", Int. J. Bio Inspired Comput. 13(2): 71-85 (2019).