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RESEARCH PUBLICATIONS

Papers in Referred Journals   : **56 (SCI, SCIE, Scopus, Google Scholar)**
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GoogleScholar **Citation indices**	All	Since 2015
Citations	368	304
h-index	10	9
i10-index	11	9

PAPERS IN REFEREED JOURNALS (in last 3 years)

1. S Gunasundari, S Janakiraman, S Meenambal, "Velocity Bounded Boolean Particle Swarm Optimization for improved feature selection in liver and kidney disease diagnosis", **Elsevier** - Expert Systems with Applications 56, 28-47, 2016, ISSN 0957-4174**. IF 4.577, CARE Group A – WoS, SCIE**

2. S Gunasundari, S Janakiraman, S Meenambal, "Multiswarm Heterogeneous Binary PSO using Win-Win approach for improved Feature Selection in Liver and Kidney disease Diagnosis", **Elsevier** - Computerized Medical Imaging and Graphics – Vol. 70, pp.135-154, Dec. 2018, ISSN: 08956111, **IF 3.29**, **CARE Group A – PubMed, Scopus.**

3. N. Saravanaselvam , C. Devipriya, **S. Janakiraman**, " Soft Computing Based Fine Tuning and Clock Synchronization in Wireless Sensor Networks", **Springer** - Wireless Personal Communications, Vol. 94, Iss. 4, pp 2229–2237, 2016, ISSN: 0929-6212, 1572-834X, Publisher **IF 0.701, CARE Group A - WoS.**

4. L. Jayakumar, S. Janakiraman, "A novel Need based free channel selection scheme for cooperative CRN using EFAHP-TOPSIS", **Elsevier** - Journal of King Saud University - Computer and Information Sciences, ISSN: 1319-1578, 2019 (In press), **SNIP:1.897, CARE Group A, Scopus, ESCI**.

5. L. Jayakumar, S. Janakiraman, "Optimal Spectrum-Hole Detection Scheme for Cooperative CRN Using Dynamic Weighted VIKOR", International Journal of Enterprise Information Systems (IJEIS)16(1), 2020 |Vol. 16 Iss. 1, pp. 1 – 24, ISSN: 1548-1115, EISSN: 1548-1123. Indexed in **ABDC, Cabell's Directory, WoS ESCI, Scopus, CARE Group A**

6. L. Jayakumar, Ankur Dumka, S. Janakiraman, "Energy aware Dynamic Mode Decision for Cellular D2D Communications by using Integrated Multi-Criteria Decision Making model", International Journal of Ambient Computing and Intelligence (IJACI), publisher: IGI Global, ISSN: 1941-6237, Vol. 11, Issue. 3, Article 7 – 2020. Indexed in **WoS ESCI, Scopus, Cabell's Directory, CARE Group A**

7. Bejoy B J, Janakiraman S, 2018, "A Generic Framework for Intrusion Detection using Cyber Immune Systems", Journal of Web Engineering, Vol. 17, No.6, pp. 2757-2768, ISSN: 1540-9589 (Print); ISSN 1544-5976 (Online),**CARE Group A, SCIE (IF 0.311).**

8. Saravanan, D., **S. Janakiraman**, K. Chandraprabha, T. Kalaipriyan, R. S. Raghav, and S. Venkatesan. "Augmented Powell-Based Krill Herd Optimization for Roadside Unit Deployment in Vehicular Ad Hoc Networks." Journal of Testing and Evaluation 47 (6), https://doi.org/10.1520/JTE20180494, **IF: 0.734,** ISSN: 0090-3973, **CARE Group A - WoS, SCI, SCIE, Scopus.**

9. S Gunasundari, **S Janakiraman,** S Meenambal, "Embedded Binary PSO Integrating classical methods for Multilevel Improved Feature Selection in liver and kidney disease diagnosis", International Journal of Biomedical Engineering and Technology, ISSN online: 1752-6426, ISSN print: 1752-6418, Article in Press, Published in online, **Inderscience** Publishers. **CARE Group A - WoS**.

10. Nallasivan G, **Janakiraman S.,** "Analysis of CT lung images using orthogonal moment features", International Journal of Biomedical Engineering and Technology, 24(2), pp. 121–132, ISSN online: 1752-6426, ISSN print: 1752-6418, **Inderscience** Publishers. **CARE Group A - WoS**.

11. Suthir S, Janakiraman S, 2017, "SNT Algorithm and DCS Protocols coalesced a Contemporary Hasty File Sharing with Network Coding Influence" in Journal of Engineering Research, ISSN: 2307-1877, **CARE Group A – WoS, SCIE, Scopus**.

12. H. Paulin, R. Milton, S. JanakiRaman, and K. Chandraprabha, "Audio−Visual (Multimodal) Speech Recognition System Using Deep Neural Network," Journal of Testing and Evaluation, Vol. 47 (6) (in press). https://doi.org/10.1520/JTE20180505. **IF: 0.721, CARE Group A - WoS, SCI, SCIE, Scopus**

13. K. Umamaheswari, S. Janakiraman, and K. Chandraprabha, "Multilevel Hybrid Firefly-Based Bayesian Classifier for Intrusion Detection in Huge Imbalanced Data," Journal of Testing and Evaluation 49 (in press). https://doi.org/10.1520/JTE20180501. **IF: 0.721, CARE Group A - WoS, SCI, SCIE, Scopus**

14. I.Manimozhi, S.Janakiraman, 2018, "Defect Detection in Pattern Texture Analysis Using Improved Support Vector Machine", Cluster Computing, https://doi.org/10.1007/s10586-018-2551-y, **IF : 2.040, Springer** US. **CARE Group A – WoS, SCIE, Scopus**.

15. Sivakumar, V., **Subbiah Janakiraman**, and K. Chandraprabha. "Improving Energy Efficiency in Wireless Sensor Networks through Virtual-Backbone−Based Topology Control Mechanism", 2019/3/11, Journal of Testing and Evaluation, Vol. 47 (6), https://doi.org/10.1520/JTE20180411**, IF: 0.721, CARE Group A - WoS, SCI, SCIE, Scopus.**

16. Manimozhi I, Janakiraman S, 2016, 'Defect Detection in Pattern Texture Analysis Based on Kernel Selection in Support Vector Machine', Indian Journal of Science & Technology, Vol. 9, Issue. 45, DOI: 10.17485/ijst/2016/v9i45/106501, ISSN: 0974-6846 **CARE Group A – WoS, SCIE, Scopus**.

17. Gunasundari.S, **Janakiraman.S.,** "Improved Feature Selection Based on Particle Swarm Optimization for Liver Disease Diagnosis", Swarm, Evolutionary, and Memetic Computing, Lecture Notes in Computer Science 8298, pp. 214–225, 2013. **Springer** International Publishing Switzerland, SNIP 0.084. Cited by : 4

18. Gunasundari.S, **Janakiraman.S.,** "A hybrid PSO-SFS-SBS algorithm in Feature selection for Liver Cancer Data", Power Electronics and Renewable Energy Systems, Lecture Notes in Electrical Engineering, Volume 326, 2015, pp 1369-1376, **Springer** International Publishing Switzerland 2014. SNIP 0.11. Cited by : 4

19. Gunasundari.S, **Janakiraman.S.,** "A Study of Textural Analysis Methods for the Diagnosis of Liver Diseases from Abdominal Computed Tomography", International Journal of Computer Applications (0975 – 8887)Volume 74– No.11, July 2013. SNIP 0.821. **Cited by 7**

20. L. Jayakumar, S. Janakiraman, Ankur Dumka, "Energy Efficient Co-operative CRN Spectrum Sharing Using Multi-level hierarchical clustering with MCDM", Inderscience - International Journal of Communication Networks and Distributed Systems (IJCNDS), Vol. 22, Iss. 2, pp.196-244, Feb– 2018, ISSN: 1754-3924, **CARE Group A - WoS.**

21. L. Jayakumar, Janakiraman S,T.P. Latchoumi, "A Novel Architecture for Next Generation Cellular Network Using Opportunistic Spectrum Access Scheme", Journal of Advanced Research in Dynamical and Control Systems (JARDCS) (1943-023X)– spl. issue (12)-pp.1388-1400 – 2017. (Indexed in SCOPUS)

22. L. Jayakumar, S. Janakiraman, "An Overview about Major Research Problems in Cooperative Cognitive Radio and its Feasible Solutions", International Journal of Control Theory and Applications (0974-5572), 9(19), pp. 9251-9265 - 2016. (Indexed in SCOPUS)

23. L.Jayakumar, Oviya. S, Shobana. R and S. Janakiraman, "A Novel Node Selection Function for Multilevel Hierarchical Clustering Scheme in Cooperative Cognitive Radio Networks", International Journal of Control Theory and Application, 9(3), 2016, pp. 221-233 – 2016. (Indexed in SCOPUS)

24. Jayakumar L., Janakiraman, S., Latchoumi, T.P., Shanthoshini, B., "Dynamic virtual server for optimized Web service interaction", International Journal of Pure and Applied Mathematics, Vol 117, Iss 19 Special Issue, 2017, Pages 371-376. **Scopus Indexed**

25. Bejoy B.J., Janakiraman S., "Artificial Immune System Based Intrusion Detection Systems-A Comprehensive Review", International Journal of Computer Engineering & Technology (IJCET), Vol. 8, Iss. 1, January-February 2017, pp. 85–95.

26. Bejoy B J, Janakiraman S, "Enhanced ais based intrusion detection system using natural killer cells", Cluster Computing, Springer (Accepted for publications 2018)

27. D Saravanan, V Agalya, J Amudhavel, S Janakiraman, "A Brief Survey on Performance Analysis and Routing Strategies on Vanets", Indian Journal of Science and Technology 9 (11), 2016. ISSN: 0974-6846, 0974-5645, **CARE Group A – WoS.**

28. Victerpaul, P., Saravanan, D., Janakiraman, S., Pradeep, J. "Path planning of autonomous mobile robots: A survey and comparison", Journal of Advanced Research in Dynamical and Control Systems, Vol 9, Iss. Special Issue 12, 2017, Pages 1535-1565. **Scopus**

29. Rajasoundaran S, Narayanasamy P, Janakiraman.S, "A Hybrid Secure Routing and Monitoring Mechanism using Authorized and Concealed Arbitrary Watchdogs in Wireless Sensor Networks", Asian Journal Of Research In Social Sciences And Humanities, 6(8) Pg: 960-985, Published: Aug 2016.

30. S. Rajasoundaran, P. Narayanasamy and S. Janakiraman, "A Framework-The Secure Routing and Watchdog System with Multi-Channel Sigryption in Wireless Adhoc Sensor Networks", Asian Journal of Information Technology, 15(5), 916-920, 2016. DOI: 10.3923/ajit.2016.916.920. **Scopus Indexed**

31. **Janakiraman.S.,** Rajasoundaran.S., Narayanasamy.P., "A Dynamic Intrusion Detection on Data Flow at Low Data Rate in Wireless Sensor Networks", European

Journal of Scientific Research, ISSN 1450-216X, ISSN 1450-216X Vol.73 No.2 (2012), pp. 245-253. IF 0.736.

32. Gayathri D., **Janakiraman S.**, "T2AR: trust-aware ad-hoc routing protocol for MANET", SpringerPlus2016, 5:995, **Springer, IF 0.982,** DOI: 10.1186/s40064-016-2667-6, Published: 7 July 2016, **Annexure I.**

33. D. Gayathri, and S. Janakiraman, "Trust Implementation in AODV Protocol: A Survey," International Journal of Software and Web Science, vol. 1(7), pp. 57-61, 2014.

34. D. Gayathri, and S. Janakiraman, "Comparative Performance analysis of Trust implemented AODV with AODV under the Black hole Attack in MANETs," International Journal of Research in Engineering and Technology IJRET, vol. 5(1), pp. 221-224, 2016.

35. D. Gayathri, and S. Janakiraman, "Impact of Black Hole Attack at Different positions in Trust Implemented AODV routed MANETs," International Journal of Emerging Technologies in Computational and Applied Sciences, vol. 1(16), pp. 50-53, 2016.

36. K.Umamaheswari, S. Janakiraman, " Intrusion Detection on Large Imbalanced Data using Hybridized Firefly Algorithm (HFA)", Journal Advanced Research and Dynamical Control System, Vol. 9, pp:1599-1612, 2017. Scopus

37. K.Umamaheswari, S. Janakiraman, "Machine Learning Algorithms in Network Intrusion Detection System " ARPN Journal of Engineering and Applied Sciences, Vol. 11,No.2, pp:1097-1100, January 2016, Scopus

38. K. Umamaheswari, S. Janakiraman, "Attack Detection System based on Hybridization of Data mining and Swarm intelligence Algorithms", International Journal of Applied Engineering Research, Vol. 10, No.85, 2015. Scopus

39. K. Umamaheswari, S. Janakiraman, "Simulation of Data mining Classifiers (Bayes, Function, Tree) using Weka" ,Jamal Academic Research Journal, Special Issue,pp:119-124, 2015.

40. Gowri J., Janakiraman S., "An Edge Exposure using Caliber Fuzzy C-means With Canny Algorithm", Indonesian Journal of Electrical Engineering and Computer Science, p-ISSN: 2502-4752, e-ISSN: 2502-4760 (Vol. 8, Issue 1, Oct 2017). **Scopus Indexed**.

41. Gowri J., Janakiraman S., "A latest efficient edge detection Approach using Sobel with HDL Coder and Ant colony Technique", International Journal of Advanced Research in Computer Science and Software Engineering, ISSN: 2277 128X (Vol. 4, Issue 12, Dec 2014, pp: 300 – 304)

42. Gowri J., Janakiraman S., "A Novel Method for Image Segmentation Using Fuzzy Threshold Selection", International Journal of Emerging Technologies in Computational and Applied Sciences**,** ISSN (Online): 2279-0055, ISSN (Print): 2279-0047 (Dec 2013-Feb-2014, Issue 7, Vol. 1, pp: 101 – 105).

43. Gowri J., Janakiraman S., "Robust Color image segmentation using efficient Soft-computing techniques: A survey", American International Journal of Research in Science, Technology, Engineering & Mathematics, ISSN(Print): 2328-3491, ISSN(Online): 2328-3580, ISSN(CD-ROM): 2328-3629 (Dec 2013-February-2014, Issue 5, Vol. 2, pp: 135-139).

44. Nallasivan G, **Janakiraman.S,** "A Simple Computational Approach for the Texture Analysis of CT Scan Images Using Orthogonal Moments", Circuits and Systems 7 (08), 1884, 2016.

45. Suthir S, Janakiraman S, 2017, "A Survey of Fast File Sharing System in Network" in International journal of Engineering Development and Research, Vol. 5, Issue: 2, pp. 1298-1304, ISSN: 2321-9939.

46. Suthir S, Janakiraman S, 2015, "A Malicious Discovery Exposure Scheme Towards Resourceful Reliance Authority in Delay Forbearing Network", in International Journal

of Science, Technology & Management, Vol. 4, Issue. 03, pp. 228-233, ISSN: 2394-1529.

47. Suthir S, Janakiraman S, 2014, "A Hybrid Network Model for Increasing Bandwidth Using Nano Communication", International Journal of Scientific & Engineering Research, Vol.5, pp. 222-225, ISSN: 2229-5518.

48. Suthir S, Janakiraman S, 2014, "Fashionable and Effectual Collective Area Setup in Node-to-Node Message", in International Journal of Software and Web Sciences, Vol. 1, Issue. 7, pp. 08-12, ISSN: 2279-0063.

49. Indumathy.S., Janakiraman.S., Amuthavel, "Effects, Challenges, Opportunities and Analysis on Security Based Cloud Resource Virtualization", International Journal of Ad Hoc and Ubiquitous Computing, ISSN online: 1743-8233, ISSN print: 1743-8225, Accepted for publication, **Inderscience** Publishers. **Annexure I**.

PAPERS IN REFEREED CONFERENCE PROCEEDINGS (IN LAST 3 YEARS)

1. Suthir.S., Janakiraman.S., "Network Server load balancing using SSL Back Forwarding methods", National Conference on Innovative Computing Techniques, NCICT - 2014, Dr.M.G.R. University, 27th & 28th March 2014.

2. D Saravanan, S Janakiraman, SS Roseline, MP Sharika, U Madhivadhani, "Efficient Route Discovery in VANET Using Binary Bat Approach", Proceedings of the International Conference on Soft Computing Systems, **Springer,** Advances in Intelligent Systems and Computing, Vol. 398, pp 529-536, 2016.

3. D Saravanan, S Janakiraman, PN Devy, T Sophia, M Mahalakshmi, "Enhancing the Interactivity in Distributed Interactive Applications", Proceedings of the International Conference on Soft Computing Systems, **Springer,** Advances in Intelligent Systems and Computing Vol. 398, pp 553-560, 2016.

4. Umamaheswari.S., Janakiraman.S., "Customer Relationship Management: Implementation process and operation outlook", ICSSR sponsored National conference on Millennium Development Goals - Challenges and Future, Vels University, 13th & 14th March 2014.

5. Suthir.S., Janakiraman.S., "Contemporary invasion revealing system for networks", National Conference on Advanced Computing Systems, DCSE, Asan Memorial College of Engineering and Technology, 2nd April 2014.

6. Jayashri, C., Abitha, P., Subburaj, S., Devi, S.Y., Suthir, S., Janakiraman, S., "Big data transfers through dynamic and load balanced flow on cloud networks", Proceedings of the 3rd IEEE International Conference on Advances in Electrical and Electronics, Information, Communication and Bio-Informatics, AEEICB 2017, 7 July 2017, Article number 7972328, Pages 342-346**. Scopus Indexed**

7. Suthir, S., Janakiraman, S., Srividya, M., Anusha, N., "A contemporary network security technique using smokescreen SSL in huddle network server", Proceeding of IEEE - 2nd International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics, IEEE - AEEICB 20169 August 2016, Article number 7538376, Pages 673-676. **Scopus Indexed**

8. Umamaheswari.S., Janakiraman.S., "Comparison of classification accuracy using feature selection for network intrusion detection system", International Conference on RDICT, EGS Pillay Engineering College, 8 & 9th May 2015. ISBN 978 93 84893 24 8.

9. **Janakiraman**.S. et. al., "Contemporary and Efficient Shared Area Network in Peer-to-Peer Communication", Proceedings of IEEE International Conference on RADAR, Communication and Computing, **IEEE Xplore,** pp. 38 - 42, ISBN: 978-1-4673-2756-5.

10. Janakiraman.S., Rajasoundaran.S., Narayanasamy.P., "The Model - Dynamic And Flexible Intrusion Detection Protocol For High Error Rate Wireless Sensor Networks

Based On Data Flow", 2012, **IEEE** International Conference on CCA, organized by PSNA Engineering College, Dindugul.

11. Jayakumar L., S Janakiraman, "Enhanced Co-operative game model for Channel Selection in clustered opportunistic spectrum access", **IEEE** 9th International Conference on Intelligent Systems and Control (ISCO), 1-5, 2015. DOI: 10.1109/ISCO.2015.7282255.

12. L. Jayakumar, S. Janakiraman, T.P. Latchoumi, Latha parthiban, "A Novel Multi-Criteria Channel Decision in Co-operative Cognitive Radio Network Using E-TOPSIS", ACM International Conference, DOI: 10.1145/2980258.2982107– 2016.

13. L.Jayakumar, S.Janakiraman "Improved History Based Channel Allocation Scheme for Cognitive Radio Network", IEEE World Conference on Futuristic Trends in Research and Innovation for Social Welfare (WCFTR'16), DOI: 10.1109/STARTUP.2016.7583900, Feb 2016.

14. T.P. Latchoumi, L. Jayakumar, S. Janakiraman, Latha parthiban, "OFS method for selecting active Features using clustering techniques", ACM International Conference, DOI: 10.1145/2980258.2982108, 2016.

15. Gowri J., Janakiraman S., **"Edge Detection based on K-means and Gabor Wavelet Technique"**, International Conference on Interdisciplinary Research in Electronics and Instrumentation Engineering 2015 (ICIREIE 2015), at Bharathiar University, Coimbatore on August 11 - 12, 2015.

16. Gowri J., Janakiraman S., "Edge detection of colour images using logic threshold techniques", paper in Third National conference on Embryonic technologies in Information and Computing (NCETIC 2013) at Sree Sowdambika College, Aruppukottai on 5th April 2013.

17. D. Gayathri, and S. Janakiraman, "Comparative Performance analysis of Trust implemented AODV with Trust implemented OLSR under the Black hole Attack," International conference on Interdisciplinary Engineering 2015 (ICIREIE 2015), Bharathiar University, 2015.

18. D. Gayathri, and S. Janakiraman, "Extenuation of Black hole attacks by Trust," National Conference on Next GEN-X Computer Applications and Technology, SNMV College of Arts and Science, Coimbatore, 2016.

19. K. Umamaheswari, S.Janakiraman, "Birds – Eye View of Swarm based Network Intrusion Detection System" National Conference on Next Gen-X Computer Applications and Technology (2016) , SNMV College of Arts & Science, Coimbatore

20. K. Umamaheswari, S. Janakiraman, "Comparison of Classification accuracy using feature selection for Network Intrusion Detection System" International Conference on Research and Development in Information and Communication Technology (ICAESM 2015) at E.G.S. Pillay Engineering College, Nagaipattinam (ISBN No. 978-93-84893-24-8)

21. Umamaheswari.S., Janakiraman.S., "Customer Relationship Management: Implementation process and operation outlook", ICSSR sponsored National conference on Millennium Development Goals - Challenges and Future, Vels University, 13th & 14th March 2014.

22. I.Manimozhi, S.Janakiraman, presented paper entitled "Defect Detection in Pattern Texture Analysis", in an IEEE International Conference on Communication and Signal Processing organized by Adiparasakthi Engg. College, Melmaruvathur, during 3 – 4, April 2014.

23. I.Manimozhi, S.Janakiraman, presented paper entitled 'Defect Detection in Pattern Texture Analysis Based on Kernel Selection in SVM', in 1st International Conference on Advanced and Intelligent Computing technologies organized by MVJ College of Engg., Bangaluru during 25 – 26th August 2016.