

**Dr. B. KAVITHA RANI**

**Designation : Professor**

**Education : B.Sc.(M.S.Cs), M.Sc(CS), M.Tech(CSE), Ph.D(CSE)**

**Specialisation : CSE**

## **RESEARCH PROFILE ID'S**

Scopus Author ID: 56018078400

ORCID : 0000-0002-1943-8104

Web of Science : ABE-6610-2020

Vidwan-ID : 252423

## **FUNDED PROJECT BY GOVT. AGENCIES**

**Title-** Creating awareness on Emerging Technologies- Robotics, 3D Printing, Internet of Things IoT for School Children A Special focus on Medchal Malkajgiri District of Telangana State

**Agency-** DST-NCSTC

**Amount Sanctioned** – 32 Lacs

## **INTERNATIONAL JOURNALS**

### **Published**

1. J Ananda Babu , Sujata Patil , B.D. Parameshachari , Stefano Rinaldi , Kavitha Rani Balmuri , KL Hemalatha , Block chain Enabled Hybrid Cryptographic Algorithm for Security and Privacy Preservation of Electronic Health Records, ICT Express (2025), doi: <https://doi.org/10.1016/j.ict.2025.08.006>
2. Mounika, Potta, B. Narayana, and Kavitha Rani Balmuri. "An Adaptive Trans-ResUnet++ Based Segmentation and Hybrid CNN-Aided Classification for Detecting Breast Cancer from Mammogram Images." Cybernetics and Systems
3. Balmuri, Kavitha Rani, et al. "Automated and reliable detection of multi-diseases on chest X-ray images using optimized ensemble transfer learning." Expert Systems with Applications 246 (2024): 122810 (SCI)
4. Anantharam, Banoth, Rajesh Sharma, and B. Kavitha Rani. "An Integrated M-Tree Approach for Securing Information in Public Auditing Clouds." International Journal of Intelligent Systems and Applications in Engineering 12.9s (2024): 557-567. (SCOPUS)
5. Anantharam, Banoth, Narendra Sharma, and B. Kavitha Rani. "Privacy-Preserving in Cloud Computing for Data Storage Security Framework Using Regenerating Homomorphic Encryption." International Journal of Computer Engineering and Technology (IJCET), Volume 15, Issue 1, Jan-Feb 2024, pp. 90-100
6. Banoth Anantharam, Rajesh Sharma, B.Kavitha Rani, "An Integrated M-Tree Approach for Securing Information in Public Auditing Clouds ", International Journal of Intelligent Systems and Applications in Engineering, ISSN:2147-6799, 2024, 12(9s), 557–567
7. Patil, S., Balmuri, K. R., Frnda, J., BD, P., Konda, S., & Nedoma, J. (2022). Identification of Triple Negative Breast Cancer Genes Using Rough Set Based Feature Selection Algorithm & Ensemble Classifier. Human-Centric Computing and Information Sciences, 12. (SCI)
8. K. R. Balmuri, S. R. Madala, P. B. Divakara chari, R. P. de Prado, and J. Frnda, Enhanced grasshopper optimization algorithm with extreme learning machines for motor-imagery classification, Asian J Control (2022), 1–14. <https://doi.org/10.1002/asjc.3000> (SCI)

9. Hemanand, D., Reddy, G. V., Babu, S. S., Balmuri, K. R., Chitra, T., &Gopalakrishnan, S. (2022). An Intelligent Intrusion Detection and Classification System using CSGO-LSVM Model for Wireless Sensor Networks (WSNs). *International Journal of Intelligent Systems and Applications in Engineering*, 10(3), 285-293. **(SCI)**
10. Sunitha, D., Balmuri, K. R., de Prado, R. P., Divakara chari, P. B., Vijayarangan, R., & Hemalatha, K. L. (2022). Congestion centric multi-objective reptile search algorithm-based clustering and routing in cognitive radio sensor network. *Transactions on Emerging Telecommunications Technologies*, e4629. **(SCI)**
11. Rani, B. K., Rao, M. V., Patra, R. K., Srinivas, K., & Madhukar, G. (2022). Vehicle type classification using graph ant colony optimizer based stack auto encoder model. *Multimedia Tools and Applications*, 1-20.
12. Balmuri, K.R.; Konda, S.; Lai,W.-C.; Divakarachari, P.B.;Gowda, K.M.V.; Kivudujogappa Lingappa, H. A Long Short-Term Memory Network-Based Radio Resource Management for 5G Network. *Future Internet* 2022, 14, 184. <https://doi.org/10.3390/fi14060184> **(SCOPUS)**.
13. Venkateshwarla Rama Raju, Kavitha Rani Balmuri, Konda Srinivas, G. Madhukar, “An advance of complex multifaceted root learning for Parkinson behavior using subthalamic nucleus biomarkers”, Doi: <http://doi.org/10.18231/j.ijn.2021.041>PageNo: 231-236.
14. Jalla Reddeppa Reddy, Neeraj Sharma, and B. Kavitha Rani. "Daze Computing Model Based Mobile Cloudlet-Zestful Vitality." Available at SSRN 4162389 (2022)
15. B, Santhosh and Lohiya, Dr. Harsh and Rani, Dr. B. Kavitha, Detection Technique In Delay Tolerant Networks Using Rid and VDTN Frame Work (June 21, 2022). Available at SSRN: <http://dx.doi.org/10.2139/ssrn.4160221>
16. Anantharam, Banoth and Lohiya, Harsh and Rani, B.Kavitha, Privacy-Preserving Public Auditing for Regenerating-Code-Based Cloud Storage (June 21, 2022). Available at SSRN: <https://ssrn.com/abstract=4150077> or <http://dx.doi.org/10.2139/ssrn.4150077>
17. Kumar, T.M.; Balmuri, K.R.; Marchewka, A.; Bidare Divakarachari, P.; Konda, S. Implementation of Speed-Efficient Key-Scheduling Process of AES for Secure Storage and Transmission of Data. *Sensors* 2021, 21, 8347. <https://doi.org/10.3390/s21248347>
18. Venkateshwarla Rama Raju, Kavitha Rani Balmuri, Konda Srinivas, G. Madhukar, “MER Signal Acquisition of STN-DBS Biomarkers in Parkinson`s: A machine learning auto regression approach”, Doi : <http://doi.org/10.18231/j.ijn.2021.040>Page No : 224-230.
19. Rama Raju, V., Anji Reddy, D., Narsimha, D., Srinivas, K., &Kavitha Rani, B. (2021). Adaptive Closed-Loop Deep Brain Stimulator Coding Techniques for Target Detections in Parkinson`s. *IETE Journal of Research*, 1-16. **(SCI)**
20. Vadivel, S., Konda, S., Balmuri, K. R., Stateczny, A., & Paramesha chari, B. D. (2021). Dynamic route discovery using modified grasshopper optimization algorithm in wireless Ad-Hoc visible light communication network. *Electronics*, 10(10), 1176. **(SCI)**
21. Subramani, P., & BD, P. (2021). Prediction of muscular paralysis disease based on hybrid feature extraction with machine learning technique for COVID-19 and post-COVID-19 patients. *Personal and ubiquitous computing*, 1-14. **(SCI)**
22. Paramesha chari, B.D., Gurumoorthy, S., Frnda, J. et al. Cognitive linear discriminant regression computing technique for HTTP video services in SDN networks. *Soft Computing* 26, 621–633 (2022). <https://doi.org/10.1007/s00500-021-06531-5> **(SCI)**
23. Rani, B. Kavitha, et al. "Telugu Text Summarization Using LSTM Deep Learning.", *Pensee Journal*
24. M Varaprasad Rao, B Kavitha Rani, K Srinivas, G Madhukar, “Automated Evaluation of Telugu Text Essays Using Latent Semantic Analysis”, *Turkish Journal of Computer and Mathematics Education*, Vol.12 No. 5 (2021),1888-1890.
25. Jalla Reddeppa Reddy, Neeraj Sharma and B.Kavitha Rani, “Design a Mobile Cloudlet-Zestful Vitality Optimization Technique Using Daze Computing Model” *International Journal of Mechanical Engineering*, ISSN: 0974-5823 Vol. 6 No. 3 December, 2021

26. Saraladevi Andhe, Neeraj Sharma and B.Kavitha Rani, "Design And Analysis Of Advanced Approach for Text Recognition Using Convolutional Neural Networks" International Journal of Mechanical Engineering, ISSN: 0974-5823 Vol. 6 No. 3 December, 2021
27. K. Srinivas, B. Kavitha Rani, M.Varaprasada Rao, Rajkumar Patra. G. Madhukar, "Prediction of Heart Disease Using Hybrid Linear Regression". European Journal of Molecular & Clinical Medicine, ISSN 2515-8260 Volume-07, Issue-05, 2020.
28. K.Srinivas, B.KavithaRani, M.Varaprasada Rao, G.Madhukar, K.Srujanraju, "Corticosteroid Usage Trend and Their Focus Effects in Patients of Dermatology Using Machine Learning". European Journal of Molecular & Clinical Medicine, ISSN 2515-8260, Issue8, 2020
29. Venkateshwarla Rama Raju, Srinivas Konda, Kavitha Rani Balmuri, Anvesh Balabhadra, "Induced micro lesion effect on cardinal motor features of Parkinson 's: A study with iMER signals of subthalamic-nuclei deep brain stimulations Electrode-Implantation) by DBS", IP Indian Journal of Neurosciences, Volume:6, Issue:3, Year:2020, Article Page: 220-225.
30. Venkateshwarla Rama Raju, Y.Harishankar Reddy, Nagaraju Krishna Chythanya, Srinivas Konda, Kavitha Rani Balmuri, "A study of novel molecules for parkinson's disease treatment molecular mechanisms of neurodegenerative complexities and brain protection", IP Indian Journal of Neurosciences2020;6(2):131–140.
31. Venkateshwarla Rama Raju, Srinivas Konda, Kavitha Rani Balmuri, Anvesh Balabhadra, BSV Raju, Ginpally Dhanunjaya Rao, "MER based analysis of local field potentials with deep brain stimulation subthalamic nucleus in Parkinson's disease using coherence and entropy techniques", IP Indian Journal of Neurosciences, Volume : 6, Issue: 3, Year : 2020, Article Page: 202-219.
32. B, Santhosh and Lohiya, Dr. Harsh and Rani, Dr. B. Kavitha, Analysis of the Detection Technique In Delay Tolerant Networks Using VDTN Frame Work, Journal of Critical Reviews, issn- 2394-5125, Vol 07, Issue-19, 2020
33. Banoth Anantharam, Rajesh Sharma, B.Kavitha Rani, Advanced Algorithm for Privacy Preserving in Regenerating Code Based Cloud Storage, Journal of Critical Reviews, issn- 2394-5125, Vol 07, Issue-19, 2020
34. Venkateshwarla Rama Raju, Srinivas Konda, Kavitha Rani Balmuri, BSV Raju, "Circuitous Goal of bSTN deep brain stimulator in parkinson disease: A study with fusion MRI guided by Computed Axial tomography and micro neuro sensor recording MER techniques", IP Indian Journal of Neurosciences, Volume:6, Issue:3, Year:2020, Article Page: 226-231.
35. K.Srinivas, B.Kavitha Rani, M.Varaprasad Rao, G.Madhukar, and B.Venkata Ramana, "Convolution Neural Networks for Binary Classification ", Journal of Computational and Nano science, ISSN.1546-1955.(Scopus).
36. B.Kavitha Rani, K.Srinivas, M.Varaprasad Rao, G.Madhukar, " Optimizing Replica Migration in Cloud Data Centers", International Journal of Recent Technology and Engineering(IJRTE)ISSN: 2277-3878, Volume-8Issue-2, July2019.
37. K.Srinivas, B.KavithaRani and Madhukar G, "Protected and Flexible Multi-Keyword Score Search model over Encoded Cloud Data", International Journal of Innovative Technology and Exploring Engineering, (IJITEE), ISSN: 2278-3075, Volume-8 Issue-5March, 2019(Scopus).
38. Srinivas Konda, Muhammad Ashfakul Hasan and B.KavithaRani, "Implementation of Data Mining Techniques for Early Stage Prediction of Blood Diseases", International Journal of Pure and Applied Mathematics, ISSN: 1314-3395, Volume 120 No. 6 2018,7425-7427.
39. S.Manasa, K.Srinivas, B.Kavitha Rani and K.Srujanraju, "Extensive Performance Analysis and Empirical Studies to Demonstrate the Security of Mobile Computing", International Journal of Research, Volume 7, Issue-VIII, August,2018.

40. K. Anusha, B. Kavitha Rani, K. Srinivas, K. Srujan Raju, "Enhanced A3P Core Analysis on Content Sharing Sites ", International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 7, issue 4 (July2018).
41. A.PrasanthRao, K.Srinivas, B.KavithaRani, "Dynamic Scheduler for Heterogeneous Computing Applications", JARDCS, Volume:10, Issue:7, Pages:336-343. **(SCOPUS)**.
42. Srinivas, K., D. Srinivas, and B. Kavitha Rani. "Analysis of Information Overload on the Web Using Temporal Summarization.", Journal of Adv Research in Dynamical & Control Systems, Vol.10,02-, Elsevier, Special Issue, 2018, ISSN-1943-023X (SCOPUS) pp.825-828.
43. D.Anji Reddy1, G.Narasimha ,K.Srinivas, B.Kavitha Rani, "Decision Support System using Tensor Flow" International Journal of Pure and Applied Mathematics. Volume118No. 24 2018, pp. 1-7.
44. Srinivas Konda, Kavitha Rani Balmuri, Ramasubba Reddy Basireddy, Ravindar Mogili, "Hybrid Approach for Prediction of Cardiovascular Disease Using Class Association Rules and MLP", International Journal of Electrical and Computer Engineering (IJECE), August 2016, ISSN:2088-8708 (SCOPUS) (Citation-5).
45. Rani, B. Kavitha, K. Srinivas, and A. Govardhan. "Rainfall Prediction with TLBO Optimized ANN." Journal of Scientific & Industrial Research 73 (2014): 643-647. (CSIR) **(SCOPUS)** (Citations -5).
46. K.Srinivas, B.Kavitha Rani, " Various Techniques on Analysis of Rainfall Prediction", International Journal of Research, ISSN: 2236-6124, Volume II, Issue-I, January-June
47. B. Kavitha Rani, K. Srinivas "Analysis of Different Methods of Rainfall Prediction", Journal of Applied Science and Computations (JASC), ISSN NO: 1076-5131, Volume1, Issue-1, January-June (2014).
48. B. Kavitha Rani, K. Srinivas "Data Mining Analysis on Feature Extraction of Rainfall Prediction", International Journal for Advanced Research in Science & Technology(IJARST), ISSN: 2457-0362, Volume 03, Issue-11, Nov(2013).
49. B. Kavitha Rani, K. Srinivas "Application of Artificial Neural Network for Rainfall Prediction", International Journal for Innovative Engineering and Management Research(IJIEMR), ISSN NO:2456-5083, Volume-03, Issue-03, Mar 2014.
50. B. Kavitha Rani, K. Srinivas "Application of Data Mining Algorithms to Predict the Rainfall", International Journal of Scientific Research and Review, ISSN NO: 2279-543x, Volume 2, Issue-2, 2013.
51. K.Srinivas, B.Kavitha Rani, "Study and Analysis of Prediction of Heart Disease Using Data Mining", International Journal for Advanced Research in Science & Technology(IJARST), ISSN: 2457-0362, Volume 03, Issue11, Nov2013.
52. K. Srinivas, B. Kavitha Rani, "Analysis of Data Mining Algorithms On Heart Disease Prediction", International Journal for Advanced Research in Science & Technology(IJARST), ISSN: 2457-0362, Volume-04, Issue 1, January2014.
53. K. Srinivas, B. Kavitha Rani, "Data Mining Tools and Techniques Analysis on Heart Disease Prediction", International Journal for Innovative Engineering and Management Research(IJIEMR), ISSN NO:2456-5083, Volume-03, Issue-01, Jan(2014).
54. K. Srinivas, B. Kavitha Rani, "A Review on Ann Based Heart Disease Prediction Analysis", International Journal for Innovative Engineering and Management Research(IJIEMR), ISSN NO:2456-5083, Volume-03, Issue-02, Feb(2014).
55. K. Srinivas, B. Kavitha Rani, "Generic Data Mining Based Heart Disease Prediction Methods", International Journal for Advanced Research in Science & Technology(IJARST), ISSN:2457-0362, Volume-03, Issue-11, Nov (2013).
56. Rani, B. Kavitha, et al. "Mining negative association rules." International Journal of Engineering and Technology, ISSN: 0975-4024, 3.2 (2011): pp. 100-105. (Citations –12).
57. Kavitha Rani, B., and A. Govardhan. "Effective Features and Hybrid Classifier for Rainfall Prediction." International Journal of Computational Intelligence Systems- online Taylor and Francis 7.5, (2014), pp. 937-951. **(SCI)**.

58. Rani, B. Kavitha and A. Govardhan. "Optimal Kernel and Wavelet Coefficients to Support Vector Regression Model and Wavelet Neural Network for Time Series Rainfall Prediction.", IJAEC 5.4, IGI Global, (2014), pp. 1-21(SCOPUS).

## CONFERENCES

### International

1. Gupta, N. S., Rout, S. K., Vinya, V. L., Tejasvi, K., & Rani, B. (2022, December). Novel Deep Learning Techniques to Design the Model and Predict Facial Expression, Gender, and Age Recognition. In International Conference on Intelligent Systems and Machine Learning (pp. 345-354). Cham: Springer Nature Switzerland.
2. S. Konda, N. K. Kar, P. Pulicherla, G. Shivakanth and R. A. C, "Cardio-Vascular Disease Prediction using Machine Learning Techniques," 2023 IEEE International Conference on Integrated Circuits and Communication Systems (ICICACS), Raichur, India, 2023, pp. 1-8, doi: 10.1109/ICICACS57338.2023.10099769.
3. Gothane, S., Raju, K.S., Rani, B.K. (2022). Waste Management Data Analytics and Solution for Domestic Waste Management to Improve Soil Quality. In: Chakravarthy, V.V.S.S.S., Flores-Fuentes, W., Bhateja, V., Biswal, B. (eds) Advances in Micro-Electronics, Embedded Systems and IoT. Lecture Notes in Electrical Engineering, vol 838. Springer, Singapore. [https://doi.org/10.1007/978-981-16-8550-7\\_48](https://doi.org/10.1007/978-981-16-8550-7_48)
4. Balmuri, K.R., Konda, S., Thirupathaiah, K., Kumar, V.N., Narasimharao, J. (2022). A Nanoplasmonic Ultra-wideband Antenna for Wireless Communications. Chowdary, P.S.R., Anguera, J., Satapathy, S.C., Bhateja, V. (eds) Evolution in Signal Processing and Telecommunication Networks. Lecture Notes in Electrical Engineering, vol. 839. Springer, Singapore. [https://doi.org/10.1007/978-981-16-8554-5\\_48](https://doi.org/10.1007/978-981-16-8554-5_48)
5. Thirupathaiah.K, Kavitha Rani Balmuri, and Srinivas Konda."Nanoplasmonic Multiband Band Pass Filters for THz Wireless Communications." 2021 IEEE Research and Applications of Photonics in Defense Conference (RAPID). IEEE,2021.
6. A.Prashanth, SwathiAgarwal,Srinivas.KandKavithaRaniB"LearningMechanism for RT Task Scheduling", 2015 IEEE International conference on computing research,(Dec-2015)(IEEE)(Citation-1)
7. M Varaprasad Rao, K Srujan Raju, G Vishnu Murthy, B Kavitha Rani, "Configure and Management of Internet of Things", International Conference On Emerging Technologies In Data Mining And Information Security (Iemis2018), University of Engineering & Management, Kolkata, India
8. Rani,B. Kavitha and A. Govardhan. "Rainfall Prediction Using Data Mining Techniques-A Survey." *The Second International Conference on Information Technology Convergence and Services (ITCSE 2013)*, pp. 23–30.(SCOPUS)
9. Rani, B. Kavitha, and A. Govardhan. "DC (Drought Classifier): Forecasting and Classification of Drought Using Association Rules." *Proceedings of the 3rd International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2014)*, Springer International Publishing, Volume 327, pp123-130. (SCOPUS).

## BOOK CHAPTERS

1. Raj Kumar Patra, Srinivas Konda, M Varaprasad Rao, Kavitarani Balmuri, G Madhukar, “*Predictive Model and Theory of Interaction* “, The Cognitive Behavior and Human Computer Interaction Based on Machine Learning(Chapter 9), Scrivener Publishing, 2022, ISBN: 9781119791607
2. Raj Kumar Patra, M Varaprasad Rao, Kavitarani Balmuri, Srinivas Konda, Manoj Kumar Chande, “*High Performance Computing and Fault Tolerance Technique Implementation in Cloud Computing*“, Green Computing and its Applications (Chapter 10),2021, DOI: <https://doi.org/10.52305/ENYH6923>
3. Srinivas Konda, Kavita Rani Balmuri, and Kishore Kumar Mamidala, *Classification and Mining of Behavioral Data*, Data Mining and Machine Learning Applications, Wiley, 2022, ISBN 1119791782, 9781119791782