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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

CALENDAR YEAR 2024

Journal Publication

1. S Pradeepa, Gaspar Niveda, S Vimal, P Subbulakshmi, Ahmed Alkhayyat, M Kaliappan, "Classifying promoters by interpreting the hidden information of DNA sequences for disease prediction in clinical laboratories using Gaussian decision boundary estimation", Intelligent Decision Technologies, IOS Press, Feb 2024, Vol. 18, No. 1, Page No. 613 – 631, DOI: <https://doi.org/10.3233/IDT-230283>.
2. Pandit Byomakesha Dash, Manas Ranjan Senapati, HS Behera, Janmenjoy Nayak, S Vimal, "Self-adaptive memetic firefly algorithm and CatBoost-based security framework for IoT healthcare environment", Journal of Engineering Mathematics, Springer Netherlands, Feb 2024, Vol. 144, No. 6, DOI: <https://doi.org/10.1007/s10665-023-10309-z>.
3. Gaurav Dhiman Dukka Karun Kumar Reddy, Janmenjoy Nayak, H.S Behera, Vimal Shanmuganathan, "A systematic literature review on swarm intelligence based intrusion detection system: past, present and future", Archives of Computational Methods in Engineering, Springer, Mar 2024, Vol. 31, Page No. 2717 – 2784, DOI: <https://doi.org/10.1007/s11831-023-10059-2>.
4. Sampath, S, Kaliappan M, Sasikaladevi, N, Vimal, "OralNet: deep learning fusion for oral cancer identification from lips and tongue images using stochastic gradient based logistic regression", Network Modeling Analysis in Health Informatics and Bioinformatics, Springer, May 2024, Vol. 13, No. 24, DOI: <https://doi.org/10.1007/s13721-024-00459-0>.
5. Appu Alfred Raja Melvin, Gnanaraj Jasper W Kathrine, Subbulakshmi Pasupathi, Vimal Shanmuganathan, Rajalingam Naganathan, "An AI powered system call analysis with bag of word approaches for the detection of intrusions and malware in Australian Defence Force Academy and virtual machine monitor malware attack data set", Expert Systems, Wiley, May 2024, Vol No. 41, No. 6, Page No. e13029, DOI: <https://doi.org/10.1111/exsy.13029>.
6. N Sasikaladevi, S Pradeepa, A Revathi, S Vimal, Gaurav Dhiman, "Anti-Diabetic Therapeutic Medicinal Plant Identification Using Deep Fused Discriminant Subspace Ensemble (D2 SE)", International Journal of Interactive Multimedia and Artificial Intelligence (IJIMAI), May 2024, In press, DOI: <https://dx.doi.org/10.9781/ijimai.2024.05.003>.
7. Asad Abbas, Roobaea Alroobaea, Moez Krichen, Saeed Rubaiee, S Vimal, Fahad M Almansour, "Blockchain-assisted secured data management framework for health information analysis based on Internet of Medical Things", Personal and ubiquitous computing, Springer London, Jun 2024, Vol. 28, No. 1, Page No. 59 – 72, DOI: <https://doi.org/10.1007/s00779-021-01583-8>.
8. Mahmood A Jumaah, Yossra H Ali, Tarik A Rashid, S Vimal, "FOXANN: A Method for Boosting Neural Network Performance", arXiv preprint arXiv:2407.03369, Jun 2024 Page No. 1 – 12, <https://doi.org/10.48550/arXiv.2407.03369>

9. Vimal. S Chopra, Garima, rani, shalli, Viriyasitavat Wattana, Dhiman Gaurav, kaur Amandeep, "UAV-assisted partial co-operative NOMA based resource allocation in C2VX and TinyML based use case scenario", IEEE Internet of Things Journal, IEEE, Jun 2024, Vol. 11, No. 12, Page No. 21402 – 21410, DOI: <https://doi.org/10.1109/JIOT.2024.3351733>.
10. Jothilakshmi Selvakani, .L., Ranganathan, B. & Palanisamy, G., "A novel key point based ROI segmentation and image captioning using guidance information", Machine Vision and Applications, Sep 2024, Vol. 35, No. 127, DOI: <https://doi.org/10.1007/s00138-024-01597-1>.
11. Amandeep Kaur Pinki, Rakesh Kumar, S Vimal, Norah Saleh Alghamdi, Gaurav Dhiman, Subbulakshmi Pasupathi, Aarna Sood, Wattana Viriyasitavat, Assadaporn Sapsomboon, "Artificial intelligence-enabled smart city management using multi-objective optimization strategies", Expert Systems, Wiley, In press, DOI: <https://doi.org/10.1111/exsy.13574>.
12. Dr.E.Mariappan, Mr.D.Asir, Dr.T.Jasperline, Dr.P.Elamparithi, Dr.A.Jegadeesh, Dr.M.Kaliappan, Mr.M.Ramnath, Mrs.R.Angel Hepzibah, "Enhanced Solar Plant Positioning Using Moth-Flame Optimization Technique", AJBR, Oct 2024, Vol. 27, No. 3S, Page No. 4405 – 4412, DOI: <https://doi.org/10.53555/AJBR.v27i3S.2845>.
13. Ramnath M, Dr. A. Anna Lakshmi, Karpagavalli C, Saravanan T, Logapriya V, Blessing karunya T, Twinkle Geojini G, Dr. Mariappan E, "Heart Disease Prediction: A Machine Learning Model for Evaluation and Hyperparameter Tuning", AJBR, Oct 2024, Vol. 27, No. 3S, Page No. 4458 – 4468, DOI: <https://doi.org/10.53555/AJBR.v27i3S.2891>.
14. Dr. Marriappan E, Dr. Anna Lakshmi A, Amala Princeton X, Vetrivel P, Dr. Ramasamy S, Angel Hephzibah R, Dr. Kaliappan M, & Ramnath M, "An Examining Cluster Behaviour Analytically Using K- Means, EM, And K* Means Algorithm", In Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/ Journal of Tianjin University Science and Technology, Oct 2024, Vol. 57, No. 10, Page No. 124 – 135, Zenodo, ISSN (Online): 0493 – 2137, DOI: <https://doi.org/10.5281/zenodo.14038149>.
15. Vaissnave V, Amuthachenthiru K, Durga Devi G, Dr. Anna Lakshmi A, Dr. Jenifer John J, Ramnath M, & Dr. Mariappan E, "LDPC Code Based Autoencoder of AWSN Using Deep Neural Networks Model For Wireless Communication Channel", In Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/ Journal of Tianjin University Science and Technology, Nov 2024, Vol. 57, No. 11, Page No. 21 – 33, Zenodo, DOI: <https://doi.org/10.5281/zenodo.14043365>.
16. Angel Hepzibah R., Anna Lakshmi A., Mariappan E., Kaliappan M., Sugel Anandh O., Amala Princeton X., Ramnath M., & Karpagavalli C, "Dragonfly Algorithm-Based Approach for Solar Power Plant Optimization in IEEE 69-Bus Network", International Journal of Science, Mathematics and Technology Learning, Nov 2024, Vol. 32, No. 2, Page No. 200 – 212, ISSN: 2327 – 915X, DOI: <https://doi.org/10.5281/zenodo.14058771>.
17. Ramnath M., Yesubai Rubavathi, "Enhancing AppAuthentix recommender systems using advanced machine learning techniques to identify genuine and counterfeit android applications", PeerJ Computer Science, Nov 2024, 10:e2515, DOI: <https://doi.org/10.7717/peerj-cs.2515>.
18. Karpagavalli, C., Harsha, A. S., Mahadevan, N., Rachel, P. P., Kathir, I., Kistan, A., Janani, M., Philip, J. M., & Rajaram, A. (2024). Advanced Wastewater Treatment using Energy -- Efficient Fenton Process Optimised with Deep Learning. in Oxidation Communications (Vol. 47, Issue 4, pp. 828–836).

Conference Publication

1. Ramnath.M Kaliappan Madasamy, Vimal Shanmuganathan, Nithish, Vishakan, Vijayabhaskar, Muthukumar, Balamurali Ramakrishnan, “Benign and Malignant Cancer Prediction using Deep Learning and Generating Pathologist Diagnostic Report”, International Conference on IoT and Health (IoTHIC 2023): Artificial Intelligence for Internet of Things (IoT) and Health Systems Operability, Feb 2024, Vol No. 8, Page No. 73 – 87, DOI: https://doi.org/10.1007/978-3-031-52787-6_7.
2. C Karpagavalli, A Nelson, R Raja, E Saranya, Manzoore Elahi M Soudagar, Christu Paul Ramaian, “Incorporating Transfer Learning in Engine Health Assessment for Accurate Remaining Useful Life Prediction”, 2024 3rd International Conference on Sentiment Analysis and Deep Learning (ICSADL), IEEE, Mar 2024, Page No. 463 – 468, Doi: <https://doi.org/10.1109/ICSADL61749.2024.00081>.
3. Sumit Kushwaha, K Amuthachenthiru, Jonnadula Narasimharao, Dileep Kumar, Sai Sudha Gadde, “Development of Advanced Noise Filtering Techniques for Medical Image Enhancement”, 2024 5th International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV), IEEE, Mar 2024, Page No. 906 – 912, DOI: <https://doi.org/10.1109/ICICV62344.2024.00149>.
4. C. Usharani, B. Revathi, A. Selvapandian, S. K. Keziah Elizabeth, “Lung Cancer Detection in CT Images Using Deep Learning Techniques: A Survey Review”, EAI Endorsed Transactions on Pervasive Health and Technology, Mar 2024, Vol. 10, DOI: <https://doi.org/10.4108/eetpht.10.5265>.
5. V. S. Kumar, C. Karpagavalli, S. Pradeep, S. Divya, S. N. Taqui and N. Vinayagam, "Deep Learning-Based EEG Signal Classification of Epileptic Patients", 2024 International Conference on Expert Clouds and Applications (ICOECA), Bengaluru, India, Apr 2024, Page No. 626-631, DOI: <https://doi.org/10.1109/ICOECA62351.2024.00114>.
6. B. Revathi, C. Usharani, S. K. Keziah Elizabeth, N. P and D. Nithya, "Deep Learning Classification Techniques on Detecting Diabetic Retinopathy Dataset", 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, Apr 2024, Page No. 663-668, DOI: <https://doi.org/10.1109/ICICT60155.2024.10544960>.
7. R. Kumar Saidala, M. Ramnath, K. C. R, N. Gowri Vidhya, S. N. Taqui and R. M, "Advancing Brain-Computer Interaction: EEG-based Eye Movement Recognition with AI," 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, Apr 2024, pp. 44-48, DOI: <https://doi.org/10.1109/ICICT60155.2024.10544675>.
8. Ramaiah, P., Pandian, E., Ponnusamy, C., Degala, D., Subramanian, B., Alagarsamy, M., “Exploration of Key components in wireless sensor networks utilizing Artificial Intelligence and virtualized security”, in Proceedings of the 5th International Electronic Conference on Applied Sciences, 4–6 December 2024, MDPI: Basel, Switzerland.

Book Chapter Publication

1. Sampath Pradeepa, Shanmuganathan Vimal, Nayak Janmenjoy, Chakrabarti Prasun, Kaliappan, Madasamy, “A Knowledge Discovery framework for Coronavirus Disease 2019 (COVID -19) disease from PubMed Abstract using Association Rule Hypergraph (AR-Hypergraph)”, Data Science in medical field, Academic Press, Elsevier, Chapter No. 7, Page No. 83 – 97, Jan 2024. ISBN 9780443240287, DOI: <https://doi.org/10.1016/B978-0-443-24028-7.00008-8>.
2. C Karpagavalli, M Kaliappan, “Machine Learning and Deep Learning Real Time Applications”, Futuristic Trends in Artificial Intelligence, Iterative International Publishers, May 2024, Vol. 3, Chapter No. 2, Book No. 10, Page No. 77-82, e-ISBN: 978- 93-6252-530-7.
3. Ms. K. Amuthachenthiru, Dr. M. Kaliappan, Dr. S. Vimal, “Machine Learning and Deep Learning Applications”, Futuristic Trends in Artificial Intelligence, Iterative International Publishers, May 2024, Vol. 3, Chapter No. 8, Book No. 3, Page No. 204 - 229, e-ISBN: 978-93-6252-144-6, DOI: <https://www.doi.org/10.58532/V3BKAI3P3CH8>.
4. Mr. M. Ramnath, Dr. C. Yesubai Rubavathi, “Study of Personal Reviews of Mobile Users”, Futuristic Trends in Artificial Intelligence, Iterative International Publishers, May 2024, Vol. 3, Chapter No. 1, Book No. 10, Page No. 65 - 76, e-ISBN: 978-93-6252-530-7, DOI: <https://www.doi.org/10.58532/V3BGAI10P2CH1>.
5. P. Nagaraj, S. Selva Birunda, “Detection and Prevention of Fake News and Hate Speech through Machine Learning and Natural Language Processing”, Text and Social Media Analytics for Fake News and Hate Speech Detection, Taylor & Francis, Aug 2024, Page No. 31, eISBN: 9781003409519, <https://doi.org/10.1201/9781003409519>.
6. D Vetrithangam, CR Komala, D Sugumar, Y Mallikarjuna Rao, C Karpagavalli, B Kiruthiga, “AI's Role in 6G Security Machine Learning Solutions Unveiled”, Security Issues and Solutions in 6G Communications and Beyond, IGI Global, 2024, Page No. 26 – 44, DOI: 10.4018/979-8-3693-2931-3.ch003.
7. J Barnabas Paul Gladly, Sonia Maria D'Souza, A Parvathi Priya, K Amuthachenthiru, G Vikram, S Boopathi, “A Study on AI-ML-Driven Optimizing Energy Distribution and Sustainable Agriculture for Environmental Conservation”, Harnessing High-Performance Computing and AI for Environmental Sustainability, IGI Global, Page No. 1 – 27, DOI: 10.4018/979-8-3693-1794-5.ch00.

Patent Publication

S.No.	Title of the Invention	Application Number	Filling Date	Status	Date of Publication
1.	System and Model for Clinical Decision Support System for Risk Categorization using Machine Learning	202341084874	12.12.2023	Published	12.01.2024
2.	Climate based Self-Speed Control System in Car using Artificial Intelligence	202441001629	09.01.20024	Published	09.02.2024
3.	Food Delivery Robot	202441074652	03.10.2024	Published	11.10.2024