



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

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Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING (AI&ML)

Artificial Intelligence & Machine Learning Research Group

INTRODUCTION:

The Artificial Intelligence and Machine Learning (AI & ML) Research Group in the Department of Computer Science and Engineering (AI & ML) at Lakireddy Bali Reddy College of Engineering is dedicated to advancing research and innovation in the field of Artificial Intelligence and Machine Learning. The group actively explores cutting-edge areas such as deep learning, computer vision, and predictive analytics, with the goal of developing impactful solutions to real-world problems.

Under the guidance of a highly experienced faculty team, including nine Ph.D. scholars, the research group strongly promotes the publication of research findings in reputed journals and presentations at leading national and international conferences. The group also regularly organizes workshops, seminars, and guest lectures by experts from academia and industry, fostering continuous learning and knowledge enhancement.

Objectives of the AI & ML Research Group:

- 1. To conceptualize, design, and develop advanced Artificial Intelligence and Machine Learning models for diverse applications, including data science, automation, robotics, natural language processing, and predictive analytics.**
- 2. To conduct regular colloquia, workshops, and knowledge-sharing sessions to enhance faculty and students' awareness of recent advancements in AI and ML technologies.**
- 3. To organize workshops, Faculty Development Programs (FDPs), guest lectures, and seminars delivered by experts from industry, academia (Universities, NITs, IITs), and research organizations to ensure continuous exposure to emerging trends and applications in AI, deep learning, and machine learning.**
- 4. To utilize high-performance computing resources and licensed software tools—such as TensorFlow, PyTorch, MATLAB, and other advanced data analysis platforms—to carry out innovative research and generate high-quality scholarly publications in AI and ML.**
- 5. To prepare and submit research proposals to national funding agencies, including AICTE, UGC, DST, and private research foundations, with the objective of securing grants to support AI and ML research initiatives.**
- 6. To foster a strong research-oriented culture among faculty and students by encouraging innovation, prototype development, and engagement with real-world industry challenges through AI and ML solutions.**
- 7. To motivate and support the publication of research outcomes in reputed national and international journals and conferences indexed in SCIE, Scopus,**

and UGC-listed platforms, ensuring adherence to global research standards.

8. To strengthen the quality and impact of final-year B.Tech projects by incorporating state-of-the-art AI and ML techniques, enabling students to develop solutions with practical relevance and societal benefit.

Members of AI & ML Research Group:

S.NO	Name of the Member	Designation
1	Dr S Jayaprada	Coordinator
2	Dr I Murali Krishna	Members
3	Dr Shaik Jameer	
4	Dr Shaik Salma Asiya Begum	
5	Dr V Sivanagaraju	
6	Dr Ch JohnWesily	
7	Mr P Jagadeeswara rao	
8	Mr L Narendra	
9	Mr Y Kranthi Kumar	
10	Mr K Ravi Kumar	
11	Mr M Pruthvi Raj	

PUBLICATIONS

ACY:2024-2025

1. Ruqsar Zaitoon, Shaik Salma Asiya Begum, Sachi Nandan Mohanty, Deepa Jose, Feature selection using hybridized Genghis Khan Shark with snow ablation optimization technique for multi-disease prognosis, *Intelligence-Based Medicine*, Volume 11,2025, 100249, ISSN 2666-5212, IF: 2.9, <https://doi.org/10.1016/j.ibmed.2025.100249>.
2. Shaik Salma Asiya Begum , Gannavarapu Gokul Madhav ,Shaik Jameer , Jampani Venkata Yaswanth Varma , Chappidi Johnwesily , Ruqsar Zaitoon ,Spandana Mande , Rehana Begum , Poluru Eswaraiah “ Deep Learning-Driven Mosquito Species Identification Using Yolov5 For Disease Monitoring And Control. *Journal of Theoretical and Applied Information Technology* 28th February 2025. Vol.103. No.4,ISSN: 1992-8645,IF:0.74, <https://www.jatit.org/volumes/Vol103No4/16Vol103No4.pdf>
3. Salma Asiya Begum Shaik, Hussain and Syed “Optimizing CNN-YOLOv7 Models for Pepper Leaf Disease Detection and Identification. "Exploring the Frontiers of Social Engineering and Public Perceptions of Technology" is a special issue of the *Nanotechnology Perceptions journal*, Vol. 20, S9 (2024),IF:0.6,<https://doi.org/10.62441/nano-ntp.v20iS9.94>
4. Nagavali Saka , Abhinav Kumar , Kolluru Suresh Babu , Konala Padmavathi , Jagadeeswara Rao Paliseti , Padmavathi Panguluri, G Lakshmi “Integrating Computer Vision And Machine Learning Models For Handwriting Analysis”,*Journal of Theoretical and Applied Information Technology* 15th June 2025. Vol.103. No.11,IF.0.76 DOI:<https://www.jatit.org/volumes/Vol103No11/17Vol103No11.pdf>
5. S. S. A. Begum, H. Shaik and H. Syed, "DCBLCCG NET: A Fusion Approach For Enhanced Pepper Leaf Disease Identification With Hybrid Deep Learning," 2024 International Conference on Intelligent Systems and Advanced Applications (ICISAA), Pune, India, 2024, pp. 1-8, DOI: 10.1109/ICISAA62385.2024.10828791
6. S. Mathe, J. Kannamma, E. Narmada, C. Rampilla and S. N. Rehmathunnisa, "Identification of Counterfeit Currency Using Image Processing and Deep Learning," 2024 15th International Conference on Computing Communication and Networking Technologies (ICCCNT), Kamand, India, 2024, pp. 1-7, doi: 10.1109/ICCCNT61001.2024.10724968.
7. P. Devika, V. Surya Narayana Reddy, D. Ramya Krishna, C. Rampilla and B. S. Charan Yadav, "Malware Classification Using Deep Learning," 2024 2nd International Conference on Artificial Intelligence Trends and Pattern Recognition (ICAITPR), Hyderabad, India, 2024, pp. 1-6, doi: 10.1109/ICAITPR63242.2024.10960019.
8. J. R. Paliseti, D. Srilikhitha, K. Bhargava, B. B. Devi and M. B. Kumar, "Touchless Mouse Control Via Hand Gestures Using Resnet and Mediapipe," 2025 International Conference on Inventive Computation Technologies (ICICT), Kirtipur, Nepal, 2025, pp. 185-191, doi: 10.1109/ICICT64420.2025.11005167.

9. Daveedu Raju, A., Valluru, D., Sudarsana Murthy, D., Jagadeeswara Rao, P., Sunil Kumar, M., Davanam, G. (2025). An Efficient License Plate Number Recognition System for Traffic Surveillance Using Deep Neural Networks. In: Kumar, A., Gunjan, V.K., Senatore, S., Hu, YC. (eds) Proceedings of the 5th International Conference on Data Science, Machine Learning and Applications; Volume 2. ICDSMLA 2023. Lecture Notes in Electrical Engineering, vol 1274. Springer, Singapore. https://doi.org/10.1007/978-981-97-8043-3_160
10. Dr. Rajendra Prasad Banavathu, Mangaraju Surya, Dinesh, Sk. Jani Basha, C. Prem Chand “Transfer Learning-Based Weed Classification And Advisory System Using DeepLearning And RAG-Based Chatbot” Proceedings of WRFER International Conference, Bikaner, India, 24th April, 2025,pages31-39, ISBN.978-93-90150-25-0.
11. Somala, J., Aggunna, B., Gajula, H. N. S., Jadam, H., & Mariseti, V. (2025, May). Hybrid AI Chatbot for Crop Yield Optimization and Disease Prevention Using Deep Learning Techniques. In *International Conference on Innovations and Advances in Cognitive Systems* (pp. 351-363). Cham: Springer Nature Switzerland.
12. Paliseti, J. R., Srilikhitha, D., Bhargava, K., Devi, B. B., & Kumar, M. B. (2025, April). Touchless Mouse Control Via Hand Gestures Using Resnet and Mediapipe. In 2025 International Conference on Inventive Computation Technologies (ICICT) (pp. 185-191). IEEE.
13. Shaik, R. B., Harshini, B., Chowdary, V. A., Malleswari, J., & Vardhan, T. J. (2025, May). Health Prediction Based on Day-to-Day Life Activity using Machine Learning Approach. In *2025 International Conference on Electronics, Computing, Communication and Control Technology (ICECCC)* (pp. 1-8). IEEE.
14. Narendra, L., Babu, B. S., Vinay, B. V. N. D., Tirumani, G., & Manohar, C. (2025, May). Smart Glasses with Voice Assistance and GPS for Independent Mobility of the Blind People. In *2025 International Conference on Electronics, Computing, Communication and Control Technology (ICECCC)* (pp. 1-7). IEEE.
15. Kranthi Kumar, Y., Shah, H. J., Aravind, K., Mokshagna, P., & Subrahmanyam, T. (2025, May). Phishing site analyzer: AI-driven real-time detection with MLP and flask. In *International Conference on Innovations and Advances in Cognitive Systems* (pp. 193-209). Cham: Springer Nature Switzerland.
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17. Sowjanya, P., Himabindu, S., Teja, Y., Karthik, D., & Basha, S. R. (2025, July). Sign Language Detection with Action Recognition Using Temporal Convolutional Networks and Transformer Encoders. In *2025 International Conference on Computing Technologies & Data Communication (ICCTDC)* (pp. 1-7). IEEE.
18. Tandra, N., Begum, S. S. A., Anuradha, K., Punna, H. S., Krishna, B., & Rajender, G. (2025, September). Innovative approaches in design and simulation: Enhancing

component performance through advanced modelling techniques. In AIP Conference Proceedings (Vol. 3342, No. 1, p. 040013). AIP Publishing LLC.

19. S. S. A. Begum, H. Shaik and H. Syed, "DCBLCCG NET: A Fusion Approach For Enhanced Pepper Leaf Disease Identification With Hybrid Deep Learning," *2024 International Conference on Intelligent Systems and Advanced Applications (ICISAA)*, Pune, India, 2024, pp. 1-8, doi: 10.1109/ICISAA62385.2024.10828791.
20. Syed, K., Asiya Begum, S. S., Palakayala, A. R., Vidya Lakshmi, G. V., & Gorikapudi, S. (2025). Leaf disease detection and classification in food crops with efficient feature dimensionality reduction. *Plos one*, *20*(8), e0328349.
21. Scientific, L. L. (2025). DEEP LEARNING-DRIVEN MOSQUITO SPECIES IDENTIFICATION USING YOLOV5 FOR DISEASE MONITORING AND CONTROL. *Journal of Theoretical and Applied Information Technology*, *103*(4).