



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC with 'A' Grade & NBA (Under Tier - I), ISO 9001:2015 Certified Institution

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

L.B. REDDY NAGAR, MYLAVARAM, NTR DIST., A.P.-521 230.

hodcse@lbrce.ac.in, cseoffice@lbrce.ac.in, Phone: 08659-222933, Fax: 08659-222931

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Artificial Intelligence & Machine Learning Research Group

INTRODUCTION:

The **Artificial Intelligence & Machine Learning (AI & ML) Research Group** in the **Department of Computer Science and Engineering** at **Lakireddy Bali Reddy College of Engineering** is focused on pioneering research in AI and ML applications. The group works on cutting-edge topics like deep learning, computer vision, and predictive analytics, aiming to develop innovative solutions to real-world challenges.

Guided by a team of experienced faculty, including seven Ph.D. holders, the group encourages publishing research in repeated journals and presenting at major conferences. We regularly organize workshops, seminars, and guest lectures with experts from both industry and academia to promote the continuous advancement of knowledge.

Objectives of the AI & ML Research Group:

1. **To design and develop AI & ML models** for a wide range of applications, including but not limited to data science, automation, robotics, natural language processing, and predictive analytics.
2. **To conduct staff colloquiums** and knowledge-sharing sessions aimed at upgrading faculty and students' understanding of the latest advancements in AI & ML technologies.
3. **To organize workshops, faculty development programs (FDPs), guest lectures, and seminars** led by experts from industries, academia (Universities, NITs, IITs), and research labs to help participants stay abreast of advancements in AI, deep learning, machine learning algorithms, and their applications.
4. **To leverage high-performance computing facilities and licensed software** to conduct cutting-edge research and produce high-quality publications in AI & ML. Available licensed tools may include platforms like TensorFlow, PyTorch, Matlab, and other data analysis software.
5. **To submit research proposals** to government funding bodies such as AICTE, UGC, DST, and private research foundations for securing grants aimed at advancing AI & ML research.
6. **To promote a research-driven mindset** among faculty and students by encouraging them to explore innovative AI & ML ideas, develop prototypes, and work on real-world industry problems.
7. **To encourage the submission of research papers** in top-tier AI & ML journals and conferences, such as SCIE, Scopus, and UGC-listed journals, and ensure the work meets global standards.

8. **To enhance the quality of final year B.Tech projects** by integrating state-of-the-art AI & ML techniques, enabling students to work on projects that have practical and societal impact.

Members of AI & ML Research Group:

S.NO	Name of the Member	Designation
1	Dr. D. Venkata Subbaiah	Coordinator
2	Dr.S. Nagarjuna Reddy	Members
3	Mr. A.S.R.C. Murthy	
4	Ms.B.Swathi	
5	Mr. N.V. Naik	
6	Mr. A. Sudhakar	
7	Mr. N. Srinivasa Rao	
8	Mr. Ch. Srinivasa Rao	
9	Ms.P.Sarala	
10	Ms. B. Usha Rani	
11	Mr.D. Anil Kumar	
12	Ms.M.Swathi	
13	Ms.T.Vineetha	

JOURNALS

1. **“Enhanced Speckle Noise Reduction in Breast Cancer Ultrasound Imagery Using a Hybrid Deep Learning Model”**, Nagireddy Venkata Raja Sekhar Reddy, Chengamma Chitteti, Sreeraman Yesupadam, **Venkata Subbaiah Desanamukula**, Sai Srinivas Vellela, Naga Jagadesh Bommagani, Ingénierie des Systèmes d’Information (International Information and Engineering Technology Association(IIETA)), **Page:** 1063-1071, 31-August 2023.<https://www.iieta.org/journals/isi/paper/10.18280/isi.280426>
2. **"Enhancing security in vehicular Ad hoc networks: A novel approach using DSFLA, SACVAEGAN, and OAEF"** , **Venkata Subbaiah Desanamukula**, B. Gunapriya, M. Janardhan, Venkateswarlu Gundu, Syed Ziaur Rahman, R.J. Anandhi, Ramesh Vatambeti, Journal of Integrated J. Integr. Sci. Technol. 2024, 12(6), 828 Science & Technology, vol.12, issue 6, May-24, ISSN 2321 – 4635.[DOI: 10.62110/sciencein.jist.2024.v12.828](https://doi.org/10.62110/sciencein.jist.2024.v12.828)
3. **“Enhancing Privacy Protection in Online Federated Learning: A Method for Secure Face Image De-Identification Using a Modified Diffie-Hellman Algorithm”**, **Venkata Subbaiah Desanamukula** Venkata Nagaraju Thatha Srihari Varma Mantena, Chandra Sekhar Reddy Linga Reddy , Phanikanth Ch Revathy Pulugu , "Mathematical Modelling of Engineering Problems, vol. 10, Issue. 6, Pg.no. 2265-2273, Dec-23, ISSN .2369-0739.
<https://www.iieta.org/journals/mmep/paper/10.18280/mmep.100642>
4. **“A Comprehensive analysis of Machine learning and Deep learning approaches towards IoT security,”** **Venkata Subbaiah Desanamukula**, M. Asha Priya darshini, D. Srilatha, K.Venkateswara Rao, R.V.S.L.Kumari, International Conference on electronics and sustainable communication systems-IEEE (ICESC), Coimbatore, India, 06-08 July 2023, ISBN:979-8-3503-0009-3.[10.1109/ICESC57686.2023.10193209](https://doi.org/10.1109/ICESC57686.2023.10193209).
5. **"An In-Depth Exploration of ResNet-50 and Transfer Learning in Plant Disease Diagnosis,"**, **V. S. Desanamukula**, T. Dharma Teja and P. Rajitha, 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, 2024, pp. 614-621, doi: 10.1109/ICICT60155.2024.10544802.
<https://ieeexplore.ieee.org/document/10544802>
6. **The use of IoT-based wearable devices to ensure secure lightweight payments in FinTech applications**, Sriramulu Bojjagani, **Nagarjuna Reddy Seelam**, Neeraj Kumar Sharma, Ravi Uyyala, **Sree Rama Chandra Murthy**, Anup Kumar Maurya, Journal of King Saud University - Computer and Information Sciences, Volume 35, Issue 9, 2023,<https://doi.org/10.1016/j.jksuci.2023.101785>.
7. **“Modernizing Cancer Diagnosis with an Intelligent Model for Lung and Colon Cancer”**, **Seelam Nagarjuna Reddy**, Gayatri Parasa, R. Janani, Srinivasulu Thiruveedula,

K. Sujatha, B. Varaprasad Rao, Sharath M N, The Journal of Electrical Systems, Vol. 20, 6S, April 2024, Page: 1218-1226, ISSN: 1112-5209.

<https://journal.esrgroups.org/jes/article/view/2851>

8. **“Ensemble Stacking Classifier for Cardiovascular Risk Prediction”, S.NAGARJUNA REDDY, D.Vamsi Krishna, I Asritha, I. Charitha, 7th International Conference On Inventive Computation Technologies, Conference Location: Lalitpur, Nepal, June 2024, 07 June 2024, ISSN: 2767-7788.**
<https://ieeexplore.ieee.org/document/10544597>.
9. **“Voice-Driven Intelligence on Wheels: A Speech-based Smart Vehicle Powered by IoT”, Seelam Nagarjuna Reddy; Adirala Samuel; Golla Sai Teja; Kowthavarapu Bindu, 2024 International Conference on Inventive Computation Technologies (ICICT), Conference Location: Lalitpur, Nepal, Date: 07 June 2024, ISSN: 2767-7788.**
<https://ieeexplore.ieee.org/document/10544877>
10. **The use of IoT-based wearable devices to ensure secure lightweight payments in FinTech applications, SriramuluBojjagani, Nagarjuna Reddy Seelam, Neeraj Kumar Sharma, Ravi Uyyala, Sree Rama Chandra Murthy, Anup Kumar Maurya, Journal of King Saud University - Computer and Information Sciences, Volume 35, Issue 9, 2023,**<https://doi.org/10.1016/j.jksuci.2023.101785>.
11. **“Federated Learning: Advancements, Applications and Future Directions for Collaborative Machine Learning in Distributed Environments”, M. Kalyani, Dr. K Kumar, A. Sree Rama Chandra Murthy, Dr. K. Kalyani, Srinivas Reddy L, Dr. Yaswanth Kumar A, Journal of Electrical Systems, Vol. 20, Issue: 5S, April 2024, Page No: 165-171, ISSN: 1112-5209.**
<https://journal.esrgroups.org/jes/article/view/1900>
12. **"Mouse Cursor Control with Eye Gestures," A. S. Rama Chandra Murthy, D. Anitha, N. M. Chowdary and S. Siddhartha Sai Kumar, 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, 2024, pp. 980-983, doi: 10.1109/ICICT60155.2024.10544549.**
<https://ieeexplore.ieee.org/document/10544549>
13. **“Development and Impact Analysis of a Multi-Pandemic Real-Time Data Dashboard: A Comparative Analytical Approach”, Swathi Buragadda, Gangavarapu Mohana Rao, M. Lavanya, Adapa Gopi, Panduranga Ravi Teja, Journal of Electrical Systems, vol. 20, Issue: 6, May-2024, pg no: 3051-3062.**
<https://journal.esrgroups.org/jes/article/view/3377/2670>
14. **"Improve Accuracy In Healthcare Data Analysis Using Competitive Ensemble Deep Learning Model", Jakkula Sravanthi; Chada Sampath Reddy; A. Mahendar; V. Ravi Kumar; Swathi Buragadda, G S Pradeep Ghantasala, Gaurav Gupta, 11th International Conference On Computing For Sustainable Global Development (INDIACom), 18-April-2024, Page no: 1792-1797, ISBN: 979-8-3503-9450-4.**
<https://ieeexplore.ieee.org/document/10498390>

15. **“Hybrid Stacking Algorithm to Detect Fraudulent Transactions in Credit Card”**, Swathi Buragadda, Vengala Naga Phanindra, Samanthapudi VenkateswarRao & RelangiJaswanth Pavan Goud, ICMEET 2023, Vol. 1155, page No. 269–281, Date: April 2024, 978-981-97-0643-3.
https://link.springer.com/chapter/10.1007/978-981-97-0644-0_25
16. **“Detection of Breast Cancer in Mammogram Images Using Multi Attention Feature Extraction with Hybrid RSA Based AlexNet”**, NUNSAVATU V NAIK, International Journal of Computational Methods and Experimental Measurements, Vol:12, issue 1, March 2024, Pg.No: 83-95, ISSN: 2046-0554.
<https://www.iieta.org/journals/ijcmem/paper/10.18280/ijcmem.120110>
17. **“Empirical Investigations To Disease Prediction Using Machinelearning And Web Integration”**, Anil Kumar Pallikonda, R Abhinaya, PVRs Padmaraju, Dr. Chandanapalli Suresh, Dr. DNVSLs Indira, **Sudhakar Atchala**, Journal of Theoretical and Applied Information Technology, Vol.102, Issue:8, April 2024, PageNo:3587-3591, ISSN:1817-3195. <https://www.jatit.org/volumes/Vol102No8/30Vol102No8.pdf>
18. **“Harnessing the Power of Deep Learning in Brain Tumor Detection”**, Narisetty Srinivasa Rao, Dasa Teja Sri, Pandilla Sai Prakash Reddy, Singamsetty Gopinadh, 2024 2nd International Conference on Device Intelligence, Computing and Communication, 22-May-24, SBN Information:Electronic ISBN:979-8-3503-7284-7, Conference Location: Dehradun, India, <https://ieeexplore.ieee.org/abstract/document/10532915>
19. **“Investing the Efficacy of Deep Reinforcement Learning Models in Detecting and Mitigating Cyber-attacks: a Novel Approach”**, Pappula Sarala, S. Phani Praveen, Anuradha Chokka, Rajeswari Nakka, Suresh Babu Chandolu, V.Esther Jyothi, Journal of Cybersecurity and Information Management (JCIM), vol.14, Issue.1, pg.no. 96-113 05/26/2024, ISSN (Online): 2690-6775, ISSN (Print): 2769-7851. <https://www.americaspg.com/articleinfo/2/show/2875>
20. **“EmoRec: Personalized Emotion Recognition and Task Recommendation System for Enhanced Learning Experiences”**, Pappula Sarala, gunde neha, n sri venkata tanmayi, alluri naga venu reddy, International Conference on Inventive Computation Technologies (ICICT), 07 June 2024, pg.no: 692-698, ISSN: 2767-7788, DOI: 10.1109/ICICT60155.2024.10545013. <https://ieeexplore.ieee.org/document/10545013>
21. **“A Systematic Analysis of Deep Learning and Machine Learning Methods for Identifying Apple Leaf Disease,”** B. Usha Rani, K. Pavani, S. Bhavani and G. Alapati, 2023 4th International Conference on Electronics and Sustainable Communication Systems (ICESC), Coimbatore, India, July-2023, pp. 761-765, 979-8-3503-0009-3 doi:10.1109/ICESC57686.2023.10192948. <https://ieeexplore.ieee.org/document/10192948>
22. **“Kernel-Based SVM Classifiers for Multi-Disease Forecasting: A Meta-Analysis”**, D Anil Kumar; U Jyothi; KammiliJagan Mohan; VanapalliMounica; A. Nageswari, 2023

23. **“Enhancing Mobile Security with an Automated SIM Slot Ejection System and Authentication Mechanism”, T. Vineetha, U. Arjun, P.Eswar, 2023 Second International Conference on Augmented Intelligence and Sustainable System(ICAISS), Sep-23, pp:1346-1353, 979-8-3503-2579-9.**
<https://ieeexplore.ieee.org/document/10250725>
24. **"Enhancing Lung Carcinoma Screening: Utilizing 2D-UNet Models for Precise Detection,"T. Vineetha, V. A. Kumar, M. L. V. S. Mohan and J. S. Lalitha, 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, 2024, pp. 877-883, doi: 10.1109/ICICT60155.2024.10544701.**
<https://ieeexplore.ieee.org/document/10544701>