



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(Autonomous)

L.B. Reddy Nagar, Mylavaram – 521230, Andhra Pradesh, INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.

Accredited by NAAC, With "A" Grade, NBA Tier-1 for ECE, EEE, CSE, IT, ME, ASE & CE

Recognised by Scientific and Industrial Research Organisation (SIRO)

Research & Development Cell

Date: 15-10-2025

Details of R & D Accomplishments – Patents during the A.Y.: 2024-25

i. No. of Patents Granted/Published : 01/39

Patents for the A.Y.: 2024-25

(From 1st July 2024 – 30th June 2025)

S.No.	Dept.	Patent-P	Patent-G
1.	AI&DS	03	00
2.	ASE	00	00
3.	CE	03	00
4.	CSE	07	00
5.	CSE(ML)	05	00
6.	ECE	04	00
7.	EEE	05	01
8.	IT	05	00
9.	ME	03	00
10	MBA	04	00
11	FED	00	00
Total		39	01
40			

i. Details of Patents for the Academic Year 2024-25

AI&DS: 3, ASE: 0, CE:3, CSE: 7, CSE(ML):5, ECE: 2, EEE: 6, ME: 3 IT: 5, FED:0, MBA: 4 Total: 38

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
Granted Category - 01			EEE-01		
1.	Economic Aspect Designing of Prototype Laboratory Multi Phase Induction Machine And Validation	Batchalakuri Jyothi Kadapa Harinadha Reddy	546035	19/10/2020	26/07/2024
Patents under Published Category -					
AI & DS-03					
2.	Machine Learning Analytics for Forecasting the Course of Acute Respiratory Syndrome Impairment	Dr Arun Shalin LV Dr. Anilkumar P Manju Bagga, Dr. Divvela Srinivasa Rao, M.Lakshmi Narayana Pappula Madhavi Ravichandra Honnalli Vijaylaxmi CHOPPARAPU SRINIVASA RAO, Athappan V	202441068991	04/10/2024	
3.	IoT Devices to Detect Irregularities in Monitoring Traffic Patterns Using a Deep Learning Based Ids	Niharika N. Nagendra S. Nanda Kishor Ashok Ram. P Rajesh kumar Dr.S.M.Shamshee r Daula Pappula Madhavi Kotteswaran Rangasamy S.Kranthi	202441105058	17/01/2025	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
4.	A System for Continuous Risk Assessment and Deceptive Credential Management In Cyber Security	Sowjanya Vuddanti Shiva Dutt Jangampeta Sai Krishna Reddy Khambam	202441051674	12/07/2024	
CE-03					
5.	Designing smart highways with integrated IoT for Traffic Management	P. Parameshwara Rao, Rahul Kumar, G. Raju, D. Viswanadh, K. Harish Kumar , L. Krishna, S. Suchismitha, J.K. Sandhya Kiran	202541032675A	Apr 2025	
6.	Development of Grey water Recycling Systems for High-Rise Buildings.	Dr M. Saravanan, Kruthiventhi Sai Karthikeya, B . Pooja Satale, Dr V. Ramakrishna , AsimGoswami, Dr.UtpalNath, Dr.A.RameshBabu, AshimaMohanty, NeeradiAbhilash, Mohammed Tabrez, PathlothBablu, . BolliAvinash	202541043424	May, 2025	
7.	Self Cleaning Concrete for Pollution Reduction in Urban Areas	Dr G.V. Sowjanya, P. Supriya, Dr UtpalNath, Y. Dasthagiri, AsimGoswami, Dr V. RamanaKollipara , S. Jagadeesan, Dr M.V.S.S. Sastry, K. Chitra	202541027009	Apr 2025	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
CSE-07					
8.	Improving EFL Speaking Accuracy with Machine Learning-Enhanced Self-Directed Learning in Higher Education	Duggineni Veeraiah Dr A. A. Jayashree Prabhakar Dr Chhavi Kulshreshtha Dr V. Karunanithi Bhupendra Kumar Patel Dr Twinkle Dasari Mr Poornesh M R. Abeetha Dr Govind Prasad Goyal Prof Naveen Kumar Mehta Prof. Dr. Dharmendra Mehta M. Saratha	202541004266 A	24/01/2025	
9.	Autonomous Night Patrolling Robot For Crime Monitoring And Live Streaming System And Method Employed Thereof	Dr B Sivarama krishna , Mr. G. V. Suresh, B. Gracy, Dr. D. Veeraiah, Dr. K. Devi Priya, Dr. D. Venkata Subbaiah, S. Joshith Sai Ram	202441088188	14/11/2024	
10.	AI-Powered Smart Drone System and Method for Precision Pesticide Spraying In Agriculture	Dr B Sivarama krishna ,	202541058538	27/06/2025	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
11.	IoT-Based Coal Mine Safety Monitoring and Alerting System	Dr. Abhaya Kumar Pradhan, Dr. G Vijaya Suresh , Mr. Prakash Kamiseti, Dr. Samson Anosh Babu P, Mr. Ranjan Kumar Pradhan, Ms. Vishakha Gopal Jadhav, Mr. Suresh Kanaparthi, Mr. Balla Kalyan, Mrs. Kunduru Anusha	202441050594 A	05/07/2024	
12.	Machine Learning Analytics for Forecasting the Course of Acute Respiratory Syndrome Impairment	Ch. Srinivasa Rao , Dr . Arun Shalin. LV, Dr. Anilkumar, P, Manju Bagga,, M. Lakshmi Narayana, Ravichandra Honnalli,. Vijaylaxmi,. Athappan V	202441068991	9/12/2024	
13.	System And Method For Real-Time Driver Behavior And Safety Monitoring	Seelam Mohith Reddy , Matta Swathi , Dr. D. Veeraiah, Dr. D. Venkata Subbaiah , Jonnadula Manasa , Kandula Tejasai	202541034679	5/9/2025	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
14.	Cloud-Based Network Security Solution With Advanced Threat Intelligence Integration	Dr.C.S.Boopathi, Mr. A. Koteswara Rao , Mrs.Poonam Joshi, Dr.V.R.Seshagiri Rao, Mr.Surendar Rama Sitaraman, Mr.Ba thula Prasanna Kumar, Mrs.Srija Gundapaneni, Mr. Devadi Ganesh, Mr.Chan du Jayaram, Dr.Sivar am Rajeyyagari"	202441061967	8/23/2024	
CSE (ML) - 05					
15.	System For Monitoring Potato Plant Diseases, And Method Thereof	Sk Salma Asiya Begum , Hussain Syed	202441049024	05-07-2024	
16.	Sytems and Methods artificial intelligence in health care and medicine: Diagnosis, Monitoring and treatment.	B rajani, Sk Pujitha, Akurathi Lakshmipathi rao, Arvinda.D, Paidipogu Sowjanya	202541005656	31-01-2025	
17.	Automatic detection and classification of plant diseases using Deep learning techniques	Dr sanju Tamang, Bandi Ranjitha, Dr N Satyavedam, I Madhavalatha, Kancherla Rajasree	202411100181	21-02-2025	
18.	Helios Thermal Power Station: System andf Method for Enhanced Solar Thermal Enery Conversion and Storage	Mr. Borra Ujwal, Mr. Anil Kumar, Dr. Rajendra Prasad Banavathu , Mr. Chalamolu Sree Sharan	202441069927	20-09-2024	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
19.	Transforming Low-Resource Language Processing With Few-Shot Machine Learning Techniques.	Dr. Pandi. Chiranjeevi, B.Venkataraman a, Nagaraju Dasari, Jagadeeswara Rao, B. Shivani,	202441062347	23/08/2024	
ECE-04					
20.	Eco-Smart Solar Drying with Adaptive Climate Sensing and Power Flexibility	U Srinivasa Rao K Kalpana Thota Sri Lakshmi Shaik Shafiya Sultana Kadiyala Sudhakar P Surendra Kumar N Naga Swathi Kola Balavani Kommalapati Rajesh Rajulapati Pushpa Sree Pitta Sneha Likhita	202541035299 A	09-05-2025	
21.	Method and System for Improving IOT Antenna Performance using Statistical Mechanics	1.Mr.Simhachala m Boddana 2.Dr.B.Kantham ma 3.Mr.Suggala Ram Prasad 4.Tella Anil Raju <u>Applicant</u> GITAM Deemed to be university	202441064655 A	13-09-2024	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
22.	YOLOv8 powered smart Gate Opener using Raspberry Pi Pico and Easy OCR	Tatikonda Krishna Chaitnya, N.Naga Swathi, K. Kalpana, Kola Balavani , Boppana Snehitha, Barri Lakshmi Lavanya Gedela Sujatha Shaik Rahman <u>Applicant</u>	202541042978 A	30-05-2025	
23.	Advanced Ear Biometrics Authentication using EfficientNET CNN for enhanced Security	Niraj Nagrale Mohit Raikwar Dr.Pushpendra Anuragi Dr.Nikhath Raza Khan Dr.Sayyad Jilani Dr.B.V.N.R. Siva Kumar Sanjay Mirchandani Dr.Sricheta Parui	202421069667 A	25-10-2024	
EEE -05					
24.	Design And Fabrication of Hybrid Dryer	Dr. Timmidi Naagadurga Malla Reddy Engineering College Dr. Jayashri N Nair Dr.G. Nageswara Rao Dr.K. Sai Sarath Dr. Lanka Ramesh Dr. KaturuBala Prasad Dr.B. Sreenivasa Raju Dr. Gopidesi Radha Krishna Dr.P.Rajeswari	202441048345	24/06/2024	05/07/2024

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
25.	IOT-Based Intelligent Energy Management for Hybrid Electric Vehicles using Machine Learning Algorithms	Saranya N S.Lalli Dr. Jitesh Pati Tripathi Dr.Manasi Vyankatesh Ghamande Dr. Vijay Kumar Tiwari Dr. Rajanish Kumar Shukla Dr. K. Ramalingeswar a Prasad Joshua Daniel S Dr.S.Subhalaksh mi Dr.Kusuma Rajasekhar Ms.Sunantha D	202441058815	02/08/2024	09/08/2024
26.	Three-Phase Bidirectional Meter Interconnected To The Grid With Monitoring Of Electrical Energy Generation From A Panel-Microinverter Set	Dr.T.Arun Srinivas Dr. N M G Kumar Mr.Parri Srihari Dr. C. S. Sundar Ganesh Mr. Kiran M R Dr.T. Babu	202441050903	03/07/2024	12/07/2024
27.	High Frequency Gan-Based Dynamic Wireless power transfer system for Electric Vehicles	Mr. B.V.Sai Thrinath Dr.B. Meghya Nayak Mr. G.Naveen Mr J.V.Pavan Chand Dr.M.Ramprasad Reddy Mr B.V. Bhargavi Dr. S.Farook Mr M.Venkatesh Mr S. Usman Basha Mr S.Srikanth Naik	202541045339	10/05/2025	30/05/2025

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
28.	Intelligent Energy Management System for Smart Grids with Demand Response and Energy Storage Integration	Dr. Penubarthi Sobha Rani	202441093097	28/11/2024	06/12/2024
IT-05					
29.	Drug Classification Using Machine Learning Techniques	Pradeep Kumr Mallick, Phaneendra Kanakamedala, Venu Madhav Sunkara, Gurram Rajendra, Rajasekhar Kommaraju, Saddi Jyothi, Annapareddy V N Reddy	202431095862	5/12/2024	20/12/2024
30.	Water Wave Optimization Algorithm based Deep Learning Model for Detection and Classification of Skin Cancer	S.Balamurugan Dr.T.Sree Kala C.T. Ashita Dr. B. Srinivasa Rao Reeba Rose L Narasimhula L. V. Venugopal Dr Veera Aruna Chittibomma Dr SVB Subrahmanyesw ara Rao Dr.Ramasamy V Dr. Suma M.R Dr.Pavithra.G Dr.T.C.Manjunat h	202441059832	08.08.2024	16.08.2024

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
31.	AI-Based Fraud Detection System For Secure Online Transactions	Dr. Rakesh Verma,Dr. Aravinda T V,Dr. Chandra Sekhar Kolli,Dr. Krishnareddy K R,Dr. Prasanta Kumar Parida,Mr. V. Srinath,Mr. Venkata Krishna Reddy Vadisena	202511006254	25/01/2025	28/02/2025
32.	A Comprehensive Self-Automated Optimization System Of Pond Aquaculture Management And Method Employed Thereof	Dr. K.Venu Gopal ,Prathyusha Oleti,Dr. Satyanarayana Talam,Dr.A.Narendra Babu,Siva Vara Prasad Chinthalapudi	202441088343	15/11/2024	13/12/2024
33.	Machine Learning Analysis of The Impact of Technostress on Student Learning And Academic Performance	Dr. R Venkat Dr Dasari Ratna Kishore Dr. Devara Pavan Nagendra Prof. Gauri Gaurav Kulkarni Sharmila EMN N.Mohananthini Thiyagarajan T Dr Ram Kumar Garg Dr.Dhanusha.C Mrs.S.Kayathri, Dr. M. Shabeena Begam Dr. G. Aparna	202441057139	27/07/2024	02/08/2024
MECH-03					

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
34.	Design and Fabrication of Indoor Air Purifier	Mr. Sankarrao Vinjavarapu, Dr. Murahar Kolli, Dr. Siva Sankara Babu Chinka, Dr. Seelam Pichi Reddy, Dr. Kondapalli Siva Prasad, Mr. Jaya Raju Gandepudi, Jitendra Gummadi	202441065368 A	29.08.2024	06.09.2024
35.	Solar Radiation Based Commodities Drying Device	Dr.Jayashri N Nair Dr.Sachin Lotan Borse Dr.Abhilah Suryan R Dr.Charushila Axay Patel Dr.V.Dhanaraju Vishv Axay Patel Hemantkumar Jayantibhai Patel Hirenkumar Jaynathi Patel Hirenkumar Rashmikant Patel Urvsiben Hirenkumar Parel	202541001885 A	08.01.2025	24.01.2025
36.	Method for Welding of EN8 and EN31 Plates by Using Pulsed Current GTAW	Dr. D.S.Ch.Mouli Dr.Md.Ahasan Dr.Vara Prasad Bhemuni Dr. Murahari Kolli Dr.Aruri Devaraju Mr.BURADAGUN TA EMMANUEL	202541045281 A	10.05.2025	30.05.2025

MBA-4

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
37.	Design a Study and Analysis of Hospitality and Tourism Management Research Using The Artificial Intelligence Based Analytics	Prof. Shafqat Alauddin Dr. Amol Pandurang Godge Dr. D. Venkateswarlu Dr. D. Revathi Natarajan P Dr. D. Anitha Dr. Rajendrasing Kisansing Pardeshi A Sadeesh Kumar Dabi Bhagyashree Prof. Dr. Dharmendra Mehta Prof. Dr. Naveen K Mehta Dr. Abhishek Rajeshkumar Mehta	202411069341	04-10-2024	
38.	Integrating Machine Learning and Psychology for Consumer Purchase Behaviour On E-Commerce Platforms	Subhashree P Dr. Amrita Baid More Dr K. Deepika Dr RVS Praveen Deepak Sundrani Dr S. Venkata Ramana Julakanti Sivananda Reddy Maria Sahaya Diran D Leuva Khushbu Hasmukhbhai T.S.Venkateswar an Dr T Ravichandran Dr A. Sasi Kumar	202441095121 A	13-12-2024	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
39.	Transforming Hr- Practices: Integrating Employee Engagement and Analytics for Organizational Success	Dr. Pankaj Adatiya Tiwari Dr. Sphurti Birajdar Mrs. Yaramala Nagamani Dr. H S Abzal Basha Ms. Joyce Daniel Dr. T. Ravindra Reddy Dr. Chikati Srinu Prof. Dr. Venugopal Janaswamy Dr. S Govardhan Mr. Sreenivas Matla Dr. R. Arun	202441058144	09-08-2024	
40.	Blockchain- Integrated AI System for Fraud Detection in Financial and E- Commerce Transactions	M Sowjanya Kotamraju.Ravi Kiran Ysaswi RVS Praveen Yeshwanth Vasa M Senthil Kumar Dr. Amit Chauhan Dr. Yashswini Varde Disha Rahal Dr G Sivagurunathan Dr Vivek Bhatnagar Dr Hirdesh Shrivastava Vishnupriya K	202541041337	23-05-2025	
Patents Granted under Design Category - 13					
41.	Pedagogy Device For Online Teaching Learning	Dr. Divvela Srinivasa Rao	6445537 (AI&DS)	28/05/2025	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
42.	IOT Based Foldable Digital Right Angle Scale for Construction	Kalpna R. Thakare, Anjan Kumar Dutta, Sandeepan Saha, Dr. N. Pannirselvam, Dr. Srinivasa C H, R. Premkumar, Dr. S. Vanitha, K. Harish Kumar	425770001 (CE)	Sept 2024	
43.	Artificial Intelligence Based Digital Spirit Level For Construction	Dr Bhupesh P Nandurkar, Dr. Amit Kumar, Dr. Rajesh, D. Devendra, Dr. A. Sashikumar, Dr. Abhay, Dr. M. Samuel, Dr. K.V. Ramana , Dr. C.V. Prasad	427899-001 (CE)	Nov 2024	
44.	Sensor Based Robotic Display For Interactive Marketing	Dr. Amardeep Gupta, Dr Bably Dolly, Dr. Sunil Babu Melingi, Mr.M. Kiran Kumar , Dr. Anandhan Mahendran, Prof. Ananda Shankar Hati, Dr Muthukumar Krishnan	6403643 (CSE)	11/10/2024	
45.	Artificial Intelligence Based Cloud Data Security Detector	Mr. Poovendran Alagarsundaram, Mrs. Shabnam Ara, Mrs. Tl Deepika Roy, Ms. M. Swathi , Dr. Putta Durga, Mr. Abhishash	443944-001	27/03/2025	

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
46.	AI Based Smart Brain Monitoring Device for Detecting Brain Activity	Dr.C.S.Boopathi , Dr.Ramesh Babu Pittala, Mr.Rajasekhar P , Dr. Prasanth Kamma, Mr.Vijay Kumar Gottipati	434430-001	03/01/2025	
47.	Device for Testing Integrated Circuits	Dr.M.Mahaboob Basha Dr.P.Lachi Reddy Dr.S.Vijayakumar Dr.G.Srinivasulu Dr.V.Madhurima Ms.M.Bharathi G.SAndhyakumari	421143-001	25-07-2024	
48.	Self Adjusting Systems for Off Road Vehicles	Dr.Jayasri N Nair Dr.V.dhanaraju Spoumya Ranjan Pradhan Dr.Abedalrzaq Aisqirate	422510-001 (Design) IPR-India	06.07.2024	22.08.2024
49.	AI-Powered Carbon Sequestration Device	Dr.SubhashChouhan Dr.Satish Kumar Patel KrritRasiklalRat Dr.SmrutiGantayat Dr.KshanPrabha Sahoo Mr. JonnalaSubba Reddy Miss Nirmala Patel	440623-001	14.12.2024	07.02.2025

Sl.	Patent Title	Applicants/ Inventors	Patent No.	Filed Date	Granted/Pu blished Date
50.	Smart Cane For Blind Users	Er. Bint UI Huda Mrs.Pallave Amol Patil Mr. JonnalaSubba Reddy Dr.Vhavani Shankar Ravindra	438209-001	23.11.2024	07.02.2025
51.	Vibration Damping Analyzer Posite Beam	Dr.PranoyDebna th Mr.Pankaj Prakash Bhirud Dr.NirmalaWark e Mr.Omesh Kumar Chandrakar Mr. JonnalaSubba Reddy	440051-001	10.12.2024	07.02.2025
52.	Off-Grid Power Management Device	Mr.Varun Yadav Mr.Swaroop Mallik Dr.Basanth Kumar Bhuyan Mr. Jonnala Subba Reddy	437654-001	18.11.2024	07.02.2025
53.	A Digital Financial Device Forecasting and Analysing Stock Transactions	Dr. Sailaja Nimmagadda Dr. R. Jeyalakshmi Mr. Surapaneni Ravi Kishan Dr. Y V Naga Kumari	417817-001	19-07-2024	

Dean R&D