



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
 Accredited by **NAAC** with **"A" Grade & NBA** for ASE, CE, CSE, ECE, EEE & IT (Under Tier - I)
 An **ISO 21001:2018, 14001:2015, 50001:2018 Certified Institution**
 Approved by **AICTE, New Delhi** and **Permanently Affiliated to JNTUK, Kakinada**
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FRESHMAN ENGINEERING DEPARTMENT

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

i.	No. of SCI/ESCI papers	: 05/02
ii.	No. of Papers in Scopus indexed Journals	: 11
iii.	No. of Papers in Conf. Proceedings indexed by Scopus	: 07
	Total Papers in SCI & Scopus	: 25
iv.	No. of Open Access Journals	: 06
v.	No. of Books/Chapters published	: 02
vi.	No. of Patents Granted/Published	: 00
vii.	No. of Research Projects Sanctioned/Ongoing	: 1/0
viii.	Faculty pursuing Ph.D.	: 04
ix.	No. of Faculty Secured Ph.D.	: 02
x.	No. of Ph.D. Scholars awarded Ph.D.	: 00
xi.	Supervisors and Scholars	: 0/0

R & D Publications for the A.Y.: 2024-25

(From 1st July 2024 – 30th June 2025)

Details of Publications											
Dept.	SCI	ESCI	Scopus-J	Scopus-C	Total	UGC/Open Access	Books	Chapters	Patents-P	Patents-G	Project-S/O
FED	05	02	11	07	25	06	01	01	00	00	1/0
33											

QUARTILE	Q1	Q2	Q3	Q4
No. of papers	4	4	4	5

SCI Papers: 05

1. **K. Bhanu Lakshmi, Kotha Gangadhar, M. Rupa Lavanya, Abderrahim Waif, "Enhanced Thermal Transport in Magnetized Cu-Fe₃O₄/Water Hybrid Nanofluid on a Curved Surface with Improved Heat Absorption Coefficient", NANO, Vol., No., 25th September 2024, Article No. 2450140, ISSN/eISSN: 1793-2920/1793-7094 DOI: [10.1142/S1793292024501406](https://doi.org/10.1142/S1793292024501406)**

Q4 Journal, Impact factor 1.1

2. **J.A. Bhaskar, K.N. Chidambara Kumar, V. Raju, T. Anjaneyulu, T. Suhasini, T. Narendrudu, V. Parvathi, Simhadri Naidu Juvvala, "Enhanced pyroelectric property in lead-free 0.94Na_{0.5}Bi_{0.5}TiO₃-0.06Ba_{0.5}Ca_{0.15}Ti_{0.90}Zr_{0.10}O₃ solid solution for thermal energy**

harvesting", Ceramics International, Vol.51, No.2 , 6th January 2025, Pp. 2278-2284, ISSN/eISSN: 0272-8842/1873-3956,

DOI: <https://doi.org/10.1016/j.ceramint.2024.11.205>

Q1 Journal, Impact factor 5.6

3. S. Venkata Krishna Sarma, Kotha Gangadhar, **K. Bhanu Lakshmi**, Saeed Dinarvand, **"Memory effects on MHD Williamson fluid over a stretched lubricated surface with microbes"**, Modern Physics Letters B, Vol., 39, No.24, 23rd January 2025, Article No. 2550113, ISSN 0217-9849 | E-ISSN 1793-6640.

DOI: <https://doi.org/10.1142/S0217984925501131>

Q1 Journal, Impact factor 2.2

4. D. Jagadeeswara Rao K.Bhargavi, **Aruna Nayudu**, V.Nagalakshmi, Ramakrishna Madaka, Siriki Srinivasarao ,S.Yonatan Mulushoa, **"Effect of Nd³⁺ and Ag⁺ doped on synthesis, structural and magnetic properties of Sr₁Nd_xAg_yFe_{12-y}O₁₉nano hexaferrite"**, Inorganic Chemistry Communications, Vol. 176, Article No. 114279, 10th March 2025, ISSN / eISSN: **1387-7003 / 1879-0259**.

DOI: <https://doi.org/10.1016/j.inoche.2025.114279>

Q1 Journal, Impact Factor 5.4

5. Abburi Sreenivas Rao, Charankumar Ganteda, M. Vara Lakshmi, I.B.N. Hima Bindu, **K.N.V. Lakshmi**, Gudala Balaji Prakash, Kamel Guedri, Wasim Jamshed, Syed M Hussain, Abdul Razak H Almaliki, **"The characteristics of thermal radiation and chemically boundary layer slip flow of a MHD Casson fluid over an exponentially elongating sheet"**, Journal of Radiation Research and Applied Sciences, Vol. 18, No. 2, Article No. 101504, 14th April 2025, ISSN: 1687-8507.

DOI: <https://doi.org/10.1016/j.jrras.2025.101504>

Q2 Journal, Impact factor 2.5

ESCI Papers: 02

1. Karnati Veera Reddy, G. Ravindranath Reddy, **K. Jhansi Rani**, Ayyalappagari Sreenivasulu, Gudala Balaji Prakash, **"Unstationary Viscoelastic MHD Flow of Walters-B liquid through a vertical porous plate with Chemical Reactions"**, East European Journal of Physics, No. 2(2025), 9th June 2025, Pp. 348-358, ISSN | eISSN: 2312-4334 | 2312-4539.

DOI: <https://doi.org/10.26565/2312-4334-2025-2-44>

Q3 Journal, Impact factor 1.7

2. Sathaiah Murimadugula, **Satyanarayana Talam**, G. Naga Raju, P. Venkateswara Rao, Narayanan Madaboosi, Mutlu Ozcan, P. Syam Prasad, **" Tissue regeneration and bacterial combating potential of combined therapeutic Bi³⁺ and Cr³⁺ ions integration in borate bioactive classes"**, Results in Engineering, Vol. 27, Article No. 105744, 12th June 2025, ISSN No: 2590-1230.

DOI: <https://doi.org/10.1016/j.rineng.2025.105744>

Q1 Journal, Impact factor 7.9

Papers Published in Scopus Journals: 11

1. Hari Krishna Yaragani, Anupama Anumolu, **Vijaya Lakshmi G**, Bindu Pathuri, Reddy G.V.R., **Heat and Mass Transfer Effects on MHD Mixed Convective Flow of a Vertical Porous Surface in the Presence of Ohmic Heating and Viscous Dissipation**, CFD Letters, Vol.16, No. 12, 21st July 2024, Pp. 72-84, eISSN: 2180-1363

DOI: <https://doi.org/10.37934/cfdl.16.12.7284>

Q3 Journal

2. **Anil Kumar Y. P. C. S.**, Kalyani, U. V., Seethamahalakshmi, V., Srinivasa Rao, T., Gurrampati, V. R. R., & Sharma, L., **“Chemical Reaction and Thermal Radiation Effects on MHD Casson and Maxwell Nanofluid Flow over a Porous Stretching Surface”**, Journal of Advanced Research in Fluid Mechanics and Thermal Sciences, Vol. 124, No.2, Pp. 208–219, 30th November, 2024, ISSN: 2289- 7879.

DOI: <https://doi.org/10.37934/arfmts.124.2.208219>

Q3 Journal

3. Dr G Lakshmi, Dr. Kolluru Suresh Babu, Dr. Ratna Raju Mukiri, **Dr L Bhagya Lakshmi**, D Venkata Ravi Kumar, Dr Suresh Betam, Chetla Chandra Mohan, **“Forward and Reverse Engineering Using Uml with Rational Rose and Object-Oriented Programming Language”**, Journal of Theoretical and Applied Information Technology, Vol. 103, N0.3, 15th Feb. 2025, Pp. 1038-1044, ISSN|eISSN: 1992-8645/ 1817-3195.

Article Link: <https://www.jatit.org/volumes/Vol103No3/20Vol103No3.pdf>

Q4 Journal

4. A. Sreenivasulu, B. V. Appa Rao, P. Lakshmi Pallavi, Gudala Balaji Prakash, **M. Srinivasa Reddy**, J Peter Praveen, D. Ramesh, **“Controllability and Observability of Matrix Sylvester Adjoint Dynamic Impulsive Systems on Time Scales”**, Communications on Applied Nonlinear Analysis, Vol. 32 No.9s, Feb. 2025, Pp. 493-507, ISSN:1074-133X.

DOI: <https://doi.org/10.52783/cana.v32.3960>

Q4 Journal

5. Gadde Sambasiva Rao, D. Ramesh, Aiyared Iampan, **G. Vijaya Lakshmi**, B. Satyanarayana, **“($\epsilon, \epsilon, V_{qk}$) – Intuitionistic Fuzzy soft Boolean Near-Rings”**, International Journal of Analysis and Applications, Vol. 23, Article No. 91, 14th April 2025, ISSN 2291-8639.

DOI: <https://doi.org/10.28924/2291-8639-23-2025-91>

Q3 Journal

6. Lakshmi Tulasi S, Suma Latha P, **Shaheda Niloufer**, Usha Rani N, Pavani P, **“Harnessing Ficus exasperata Leaf Extract for Sustainable Magnesium Oxide Nanoparticles with Antimicrobial Activity”**, International Journal of Advancement in Life Sciences Research, Vol 8, No. 2, Pp. 177-185, 30th April 2025, E-ISSN: 2581-4877,

DOI: [10.31632/ijalsr.2025.v08i02.014](https://doi.org/10.31632/ijalsr.2025.v08i02.014)

Q4 Journal

7. V. Meenakshi, **M. Srinivasa Reddy**, A.R. Deepika, Kamatam Govardhan, **“Thermal flow of tri-hybrid (TiO₂+SiO₂+ Al₂O₃/H₂ O) nanofluids over an exponentially stretching sheet with porous medium”**, International Journal of Ambient Energy, Vol. 46, Issue 1, Article No. 2498433, 16th May 2025, ISSN 0143-0750 | E-ISSN 2162-8246, [Open Access.

DOI: <https://www.tandfonline.com/doi/full/10.1080/01430750.2025.2498433>

Q2 Journal

8. M.V. Rama Chandra Rao, D. Hari Prasad, B. Jyothi, D.Pavan Kumar, P. Naresh, **G. Vijaya Lakshmi**, M. Nagarjuna, Valluri Ravi Kumar, Y. Gandhi, N. Veeraiah, **“Luminescence properties of HO³⁺ ions in Pb₃O₄ – B₂O₃ - P₂O₅ – ZnO – Al_{III}x (Al_{III}x = Al₂O₃, Ga₂O₃ and In₂O₃) glasses”**, Optik, Vol. 328, Article No. 172315, 08th April 2025, ISSN|eISSN: 0030-4026 | 1618-1336. (SCOPUS, Q2, Impact factor – 0.505)

DOI: <https://doi.org/10.1016/j.ijleo.2025.172315>

Q2 Journal

9. **Bhanu Lakshmi**, Kotha Gangadhar, Pallamkuppam Vinod Kumar, Syeed Dinarvand, D. Naga Bhargavi, M.Venkata Subba Rao, **“A Numerical approach to Cattaneo-Christov Heat**

Flux in Oldryo-B fluids with tri-nanoparticle suspension", International Journal of Ambient Energy, Vol. 46, Issue 1, Article No. 2507811, 26th May 2025, ISSN 0143-0750 | E-ISSN 2162-8246, , Open Access.

DOI: <https://doi.org/10.1080/01430750.2025.2507811>

Q2 Journal

10. Abdulla M.D., L. Zainab Tehmeen Khanam, Reddygari Yamini, Dr. B. Hilda Annie Grace, **Kannula Sridevi**, Dr. Imran Mahammad, "**An Integration of WhatsApp, Peer Review and Assessment with Blended Learning to Enhance the English Language Skills of Freshmen Engineering Graduates**", Library Progress International, Vol. 44, No. 3, 31st July 2024, Pp. 6949-6958, ISSN/eISSN: 0970-1052/2320-317X.

DOI: <https://doi.org/10.48165/bapas.2024.44.2.1>

11. Jyothi Anantula , Venkata Krishna Rao Likki , Rathna Jyothi Chaduvula, **Shaheda Niloufer**, Konala Padmavathi , Padmavathi Panguluri , J. Usha Kranti, "**Cloud Iot Environments Security: Deep Learning With Generative And Explainable Models**", Journal of Theoretical and Applied Information Technology, Vol. 8, Issue 2, 30th June 2025, ISSN: 5168-5181.

DOI: <https://www.jatit.org/volumes/Vol103No12/12Vol103No12.pdf>

Q4 Journal

Scopus indexed Conference Proceedings: 07

1. K. N. V. Lakshmi, R. E. Ugandar, [Surrya Prakash DilliBabu](#), [Ramesh Velumayil](#), [G. Rathinasabapathi](#), [G. A. Sivasankar](#), [N. Muralidharan](#), [B. Palanikumar](#), "**Investigation on the mechanical properties of AA6063/Sic/Tio2 nano hybrid metal matrix composites**", AIP Conference Proceedings, Paper presented in International Conference on Newer Engineering Concepts And Technology: ICONNECT-2024, 28-29 March 2024, Trichy, India, Vol. 3270, No. 1, Article No. 020244, 11th April, 2025, ISSN 0094-243X | eISSN 1551-7616. (SCOPUS)

DOI: [10.1063/5.0261758](https://doi.org/10.1063/5.0261758)

2. R. Rajaprasanna, Vipin Sharma, Ashwini Satyanarayana, E. Shankar; Ramesh Velumayil, **Vijaya Dasaradha Sani**, S. Muthuvel, V. Vijay, "**Evaluating the fatigue life of AA3003 aluminium alloy joints welded by friction stir welding: A comparative analysis with TIG and MIG techniques**", AIP Conference Proceedings, paper presented at International Conference of newer Engineering concepts and Technology: ICONNECT-2024, 28-29 March 2024, Vol. 3270, No. 1, Article No. 020218, 17th April 2025, ISSN 0094-243X | eISSN 1551-7616.

DOI: <https://doi.org/10.1063/5.0262726>

3. V. Ravi Raj, G. Gnanakumar, G. Vinoth Kanna, **Vijaya Dasaradha Sani**, Ramesh Velumayil, Amit Kumar Sharma, V. Vijayan, "**Impact of fabrication parameters on the performance of hemp fiber-reinforced vinyl ester (HFRVE) composites**", AIP Conference Proceedings, paper presented at International Conference of newer Engineering concepts and Technology: ICONNECT-2024, 28-29 March 2024, Vol. 3270, No. 1, Article No. 020208, 11th April 2025, ISSN 0094-243X | eISSN 1551-7616.

DOI: <https://doi.org/10.1063/5.0263778>

4. Raviteja Surakasi, C.T. Muthiah, Alias Paul, B. Uma, J. Devaraj, **P. Sobhanachalam**, M. Rajendiran, A. Parthiban, "**Mechanical enhancement of epoxy hybrid composites via Sio2 nanoparticles integration**", AIP Conference Proceedings, **Innovations In Thermal, Manufacturing, Structural And Environmental Engineering: ICITMSEE-24, 26-27, April 2024, Trichy**, Vol. 3267, No. 1, Article No. 020306, 12th June 2025, ISSN: 1551-7616.
DOI: <https://doi.org/10.1063/5.0265223>
5. Bachina Harish Babu, Sarange Shreepad Marotrao, A. Shanmugam, **P. Sobhanachalam**, Vemu Vara Prasad, R. Priya, Raghuram Pradhan, S. Muthuvel, "**Enhancing mechanical properties of composite resin/hydroxyapatite nanocomposite for dental and orthopedic applications: Synthesis, characterization, and bioactivity assessment**", AIP Conference Proceedings, **Innovations In Thermal, Manufacturing, Structural And Environmental Engineering: ICITMSEE-24, 26-27, April 2024, Trichy**, Vol. 3267, No. 1, Article No. 020297, 12th June 2025, ISSN: 1551-7616.
DOI: <https://doi.org/10.1063/5.0270498>
6. Kampa Lavanya, [Dhamaraju Sai Satish](#), Y. Madhavi Reddy, **K. Jhansi Rani**, "A Two-Level Framework for CXR Image Enhancement with Gradient Assisted Guided Based CLAHE", IEEE Xplore, Proceedings 2024 2nd International Conference on Advanced Computing & Communication Technologies (ICACCTech), held on 16-17 Nov. 2024, Pp. 493 – 499, 13th March 2025.
DOI: [10.1109/ICACCTech65084.2024.00086](https://doi.org/10.1109/ICACCTech65084.2024.00086)
7. Durga Prasad, Vijay Arputharaj J, KunchamSreenivasaRao, **D. Vijaya Kumar**, "**Complex Network Articulation Points Detection and Centrality Measures**" Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering ((LNICST,volume 599)) Published by Springer Nature Link, Switzerland AG 2025, Pp. 447–463, 09 Feb 2025.
DOI: https://doi.org/10.1007/978-3-031-77081-4_35

Open Access Journals/UGC/Others: 06

1. Vempati, L. S., Singh, P. P., **Parvathi, V.**, "**Handwritten Telugu Two-digit Recognition and Novel Computational Analysis of the Ancient Fractional Notations**", in Intelligent Computing and Communication Techniques: Proceedings of the International Conference on Intelligent Computing and Communication Techniques (ICICCT 2024), New Delhi, India, 28–29 June, 2024, Vol. 3, No. 1, 10th June 2025, pp. 418–424, , ISBN: 9781003635680.
DOI: <https://doi.org/10.1201/9781003635680-63>
2. Srinivasa Reddy Bireddy, Mushini Venkata Subbarao, **Kota Sri Lakshmi**, Rameswara Reddy Yeddula, V. Sushma, Jetti Madhavi, "**The Role of Microstructure in the Fracture Toughness of Advanced Ceramics**", Metallurgical and Materials Engineering, Vol. 31, No. 4, Pp. 529 – 536, 16th April 2025, ISSN | eISSN: 2217-8961, 2812-9105, (ESCI, Q4, Journal Impact factor 0.19).
DOI: <https://doi.org/10.63278/1481>

3. Ch. Harisha, B. V. Appa Rao, Althada Ramesh Babu, **K. Jhansi Rani**, Venkat Rao Kanuri, A. Sreenivasulu, "**Periodic Solution for Pair of Matrix Sylvester Volterra Integro-Dynamic System on Time Scales**", Advances in Nonlinear Variational Inequalities Vol.28, No. 4, Pp. 105-115, May 2025, eISSN: 1092-910x.
DOI: <https://doi.org/10.52783/anvi.v28.3228>
4. Shifa Shami, Capt. Dr. V Parimala Venu, Gandhi Babu Shanampoodi, Dr. T.S. Rajeswari, **Ms. D. Chaithanya**, Shaik Shakira Fazulur Rehmana, Samiksha Sharma, "**Impact Of English Language Learning On Mental Health: Exploring The Relationships Between Language Anxiety, Self-Esteem, And Depression**", Journal of Neonatal Surgery, Vol. 14, No. 9s, Pp. 328-333, May 2025, ISSN: 2226-0439.
DOI: <https://doi.org/10.52783/jns.v14.2668>
5. **L. Bhagya Lakshmi**, P. Ramakoteswara Rao, Ch. Chandra Mohan, Lella Kranthi Kuar, Kusuma Sundara Kumar, Bandaru Venkata Shiva Kumar, "**Prediction of Physico-Chemical Characteristics of Groundwater Using Machine Learning Model**", Volume Title: Proceedings of the International Conference on Computational Innovations and Emerging Trends (ICCIET- 2024), Series: Advances in Computer Science, 30th July 2024, ISSN: 2352-538X, ISBN: 978-94-6463-471-6.
DOI: [10.2991/978-94-6463-471-6_60](https://doi.org/10.2991/978-94-6463-471-6_60)
6. G. Sreedevi, K. Venkat Rao, K. Bhargavi, **P. Vijaya Sirisha** and V. Jaya Lakshmi, "**Chemical Precipitation Synthesis of MoS₂ Nanoflowers and their Structural and Optical Properties**", Proceedings of International conference on Emerging Multi functional materials and Devices for Sustainable Technologies, **EIMDST 2024**, 04-05 July 2024, NIT Warangal, Pp. 45-51, 3rd May 2025, ISBN: 978-981-96-5862-6.
DOI: https://doi.org/10.1007/978-981-96-5863-3_6

Details of Books/Chapters for the Academic Year 2024-25: 01

Sl	Authors	Title of the Book /Chapter	Publisher	Published Month & Year	ISBN
1.	Dr. G. Santhi, Dr. Bhaskar C, Dr. Radha Rani Tammileti , Dr. V. S. Bhagavan	Numerical Technique and Integral Transforms	Scientific Publishing House	January 2025	978-93-6674-728-6
2.	Satyanarayana Talam , Kamal Phaneendra Avula, Sameer Syed, Snigda Battula	Fabrication techniques for microfluidics devices	Academic Press	November 2024	9780443134548 Indexed in Scopus

Research Projects: 01

S.No.	Principle Investigator	Title of the Project	Funding Agency-Scheme	Amount Sanctioned & Date	Amount Received in Rs.& Date	Duration & Status
1.	Hema Sai Sri Chandana Odugu (22761A4H5) Dr. T. Satyanarayana (Mentor)	Smart gas leakage detection, monitoring and prevention system for smart cities	MSME Idea Hackathon 4.0 (Youth)	15,00,000 27-06-2025		1 Year

Faculty Pursuing Ph.D.: 04

S.No.	Name of the Faculty	Supervisor/ Co-Supervisor	Date of Registration	University	Area of Research
1.	Ms. K.N.V. Lakshmi	Dr. K. Jonah Philip	26-12-2024	Andhra Kesari University	Fluid Mechanics
2.	Ms. D. Chaitanya	Dr. Reema Chakraborty	10-03-2022	Vignan University	Dalit Feminism
3.	Ms. M. Anuradha	Dr.G.Chenna Reddy	09-01-2020	Acharya Nagarjuna University	American Literature
4.	Ms. K. Sridevi	Prof.M.Neeraja	03-06-2022	Sri Pamavathi Mahila Visvavidyalaya	Indian writing

Details of Faculty Secured Ph.D.: 02

S.No.	Faculty with Designation	Date of Registration	Date of Awarding Ph.D.	Name of the University
1.	Dr. M. Rami Reddy, Sr. Asst. Professor	24-08-2020	28-08-2024	Acharya Nagarjuna University
2.	Dr. D. Sri Lakshmi Manasa Asst. Professor	19-08-2021	30-12-2024	Jayoti Vidyapeeth Women's University, Jaipur, Rajasthan.