

Curriculum Vitae

Jupudi Lakshmi Rama Prasad



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ACADEMIC QUALIFICATIONS/ACHIEVEMENTS:

- (i) **Ph.D.** (Mathematics): Acharya Nagarjuna University, Andhra Pradesh (Feb. 2019).
Title of the Thesis: HEAT AND MASS TRANSFER EFFECTS ON HYDROMAGNETIC FREE CONVECTION FLOW THROUGH POROUS MEDIUM PAST AN INCLINED SURFACE
- (ii) **M.Phil.**(Mathematics): University College, Acharya Nagarjuna University.
A Grade with 74.33%. (Year- 2005)
- (iii) **M.Sc.** (Mathematics) : University College, Acharya Nagarjuna University,
First class - 73.1% (Year- 1999)
- (iv) **B.Sc.** (M.P.C.) : A.N.R.College, Gudivada, affiliated to A.N.U. (Year- 1997)
First division (85.6%) & Awarded with **Kavuru Gold Medal** for College first and with **JCC Gold Medal** for Town First.
- (v) **GATE** : Qualified in GATE-2001 with a percentile Score of 85.73 and rank123
- (vi) **SET** : Qualified in **TS & AP State Lecturers Eligibility Test**

WORK EXPERIENCE: 23 years of Teaching Experience

- Present position** : Asst. Professor, PG Department of Mathematics
P.B. Siddhartha College of Arts & Science, Vijayawada,
August 2003 to till date.
Worked as a Lecturer in A.N.R.College, Gudivada, A.P.
from June 1999 to Sep 2001.
- Papers taught** : D.E, P.D.E, Measure & Integration, Operations Research
Topology, Real Analysis, Algebra, Mathematics for Data
Science, Probability and Statistics, DMS, Complex Analysis.

ADMINISTRATIVE EXPERIENCE:

1. IQAC Co- Coordinator for P. B Siddhartha College of Arts & Science, Vijayawada since 2018 and the college was awarded with NAAC A+ grade in 2019.
2. Editor, Siddhartha Academy House Journal, Vijayawada from January 2018 to 2023.
3. Academic Secretary, “Association for the Improvement of Mathematics Education”, Vijayawada for two years.
4. Member of various committees constituted by the college such as Liaison, Discipline, Magazine, Internal Academic Audit, etc.
5. Dy. Head, Department of Mathematics, P. B. Siddhartha College of Arts & Science.

RESEARCH PROJECTS :

1. Completed a Minor Research Project entitled “A Study of Fuzzyness in Near-Rings” sanctioned by the **University Grants Commission**, in March 2004.

PATENTS GRANTED /PUBLISHED:

1. A patent entitled “ Under water pollution monitoring system to prevent fatalities of Aqua Eco System ” was published in Patent Journal No.42/2020, P.No. 289, Application No. 202041044264A, October 2020.
2. A patent has been **granted** for an invention entitled “Application of Ethyl acetate with 1-Butyl 3-methyl –imidazoliumbis(trifluoromethylsulfonyl)imide in automobile industry to reduce the freezing point”, Patent Journal No.17/2021, P.No. 20536, Application No. 202141017340, 14th April 2021 and Patent Grant No: 485750, Dt. 19.12.2023

RESEARCH EXPERIENCE : 10 years. Field of study : (a) Fluid Dynamics (b) Algebra

RESEARCH SUPERVISOR: Recognized as a Research Supervisor in Mathematics by Krishna University. At Present 1. G. Bala Krishnam Raju 2. N. Syam Prasad 3. M.Balamma and 4. K. Fathima are working under my guidance for their Ph.D in Fluid Mechanics and Algebra. Also guiding two other scholars of Krishna University as a Co Supervisor.

RESEARCH PAPERS PUBLISHED:

- 1) Fuzzy Cosets of Prime Fuzzy Submodules, Journal of Fuzzy Mathematics, ISSN: 1066-8950, Vol. 17, No.3, pp.595-603, 2011, Publisher: International Fuzzy Mathematics Institute, Los Angeles, U.S.A

- 2) Thermal radiation and radiation absorption effects on unsteady MHD double diffusive free convection flow of kuvshinski fluid past a moving porous plate embedded in a porous medium with chemical reaction and heat generation, Far East Journal of Mathematical Sciences (FJMS), ISSN: 0972-0871, Vol. 91, No.2, pp 211-231, 2014. **(Scopus indexed)**
- 3) Chemical reaction and radiation Absorption effects on hydro magnetic free convection flow past a vertical plate with constant mass flux, Far East Journal of Mathematical Sciences (FJMS), ISSN: 0972-0871, Vol. 98, No.2, pp. 133-149, 2015. **(Scopus indexed)**
- 4) Unsteady MHD free convective flow past a moving vertical plate with time dependent suction and chemical reaction in a slip flow regime, Procedia Engineering, Elsevier, Vol. 127, pp. 516-523, ISSN: 1877-7058, 2015. **(Scopus indexed)**
- 5) Unsteady MHD Convective Heat And Mass Transfer Flow Past An Inclined Moving Surface With Heat Absorption, JP Journal of Heat and Mass Transfer, ISSN: 0973-5763. Vol. 13, No. 1, pp. 33-51, 2016. **(Scopus indexed & Q4)**
- 6) Influence of radiation absorption, viscous and joules dissipation on MHD free convection chemically reactive and radiative flow in a moving inclined porous plate with temperature dependent heat source, International Refereed Journal of Engineering and Science, ISSN: 2319-1821, Vol. 5, No. 12, pp. 20-31, 2016.
- 7) A review on Cosets of Fuzzy Submodules, S S International Journal of Pure and Applied Mathematics, EISSN : 2395 -5732, Vol.2, Issue.2, pp. 39-42, Special Issue 2016. Conference Proceedings.
- 8) Hydro magnetic Free Convective Flow Past An Inclined Moving Surface Embedded in Porous Medium in a Slip Flow Regime, International Journal of Mechanical Dynamics & Analysis, Vol. 3, No. 1, pp. 1-12, 2017.
- 9) Radiation and Chemical Reaction Effect on MHD Flow Past an Accelerated Isothermal Inclined Plate in a Rotating Fluid with Variable Mass Diffusion, International Journal of Chemical Separation Technology, e-ISSN : 2456-6691, Vol.3, No.1, pp. 01-14, 2017.
- 10) A study on Al_2O_3 - H_2O Nano fluid in the presence of constant Heat Source, International Journal of Mechanical and Production Engineering Research and Development, Trans Stellar Journal Publications, ISSN: 2249-8001, Vol.9, Issue 2, pp.399-406, April 2019.**(Scopus indexed)**

- 11) A Study of MHD Dissipative Fluid with Radiation Absorption and Chemical Reaction effects, Journal of Xidian University, ISSN: 1001-2400, Vol 14, Issue 5, Pp. 1168-1177, 2020 **(Scopus indexed & Q4)**
- 12) An incitement of Hall and Aligned MHD Casson flow, TEST Engineering and Management, Vol. 83, PP:12035-12040, June 2020, I.F: 0.1, ISSN: 0193-4120 **(Scopus indexed)**
- 13) Effects of radiation and radiation absorption on unsteady MHD flow past a vertical porous flat plate in a rotating system with chemical reaction in a Nanofluid, International Journal of Advanced Trends in Computer Applications (IJATCA), ISSN: 2395-3519, pp. 147-152, Spl.Issue, July 2019. (Conf. Pro)
- 14) Aligned Magnetic field effect on unsteady MHD double diffusive free convection flow of Kuvshinski fluid past an inclined moving porous plate”, Lecture Notes in Mechanical Engineering, ISSN:2195-4356, pp.255-262, July, 2020, Publishers: Springer Nature. **(Scopus indexed)**
- 15) Cosinusoidally fluctuating temperature and chemical reacting effects on MHD free convective fluid flow past a vertical porous plate with Hall, Ion-slip current and Soret”, Lecture Notes in Mechanical Engineering, ISSN:2195-4356, Pp:15-24, July, 2020, Publishers : Springer Nature. **(Scopus indexed)**
- 16) Entropy generation and temperature gradient heat source effects on MHD couette flow with permeable base in the presence of viscous and joules dissipation, Frontiers in Heat and Mass Transfer, ISSN: 2151-8629, Vol. 15, Issue 8, September 2020 **(Scopus, Web of Science indexed and Q3)**
- 17) Heat transfer and entropy generation analysis in a horizontal channel filled with a permeable medium in the presence of aligned magnetic field and temperature gradient heat source, Research Article No. 377 , SN Applied Sciences, e ISSN: 2523-3971, Volume 3, Issue 3, March 2021, Springer Nature. **(Scopus, Web of Science & Q2),**
- 18) Numerical Investigation of Casson Maxwell MHD Nano Fluid with multiple slip features, International Journal of Mechanical Engineering, ISSN No. 0974-5823, Vol.6, No.3, Pp: 1317-1327, Dec 2021. **(Scopus indexed)**
- 19) Heat and Mass Transfer effects on linearly accelerated Isothermal Inclined plate, Frontiers in Heat and Mass Transfer, ISSN: 2151-8629, Vol. 18, Issue 11, March 2022. **(Scopus, Web of Science indexed and Q3)**

- 20) Radiative Magneto Hydrodynamic flow over a vertical cone filled with convective nano fluid, Communications in Mathematics and Applications, ESCI, ISSN: 0976-5905, Vol 13, No.2, pp. 449–459, July 2022. **(Web of Science indexed)**
- 21) Non homogeneous two component buongiorno model for nano fluid towards Howarth's wavy cylinder with activation energy, Results in Engineering, ISSN: 2590-1230, Vol. 17, No. 100879, 2023. I.F: 4.5 **(Scopus, Web of Science indexed & Q2)**
- 22) Performance of magnetic dipole contribution on ferromagnetic non newtonian radiative MHD blood flow: An application of biotechnology and medical sciences, Heliyon, ISSN: 24058440, e13369, Vol.9, 2023. **(Scopus, Web of Science indexed & Q1)**
- 23) Entropy generation analysis on forced and free convection flow in a vertical porous channel with aligned magnetic field and Navier slip, Heat Transfer, Vol.52, Issue 7, PP: 4619-4639, ISSN: 2688-4534, May 2023. **(Scopus, Web of Science indexed & Q2)**
- 24) Exploration of bio-convection for slippery two-phase Maxwell nano fluid past a vertical induced magnetic stretching regime associated for biotechnology and engineering, Journal of Molecular Liquids, 391, Part B, 123408, ISSN: 0167-7322, eISSN:1873-3166, Elsevier Publishers, SCIE, October 2023. **(Scopus, Web of Science indexed & Q1)**
- 25) Analysis of a Ferromagnetic Nanofluid Saturating a Porous Medium with Nield's Boundary Conditions, 'Mathematics', ISSN: 2227-7390, Vol. 11. Issue 22, No.4579, MDPI Publishers, Switzerland, SCIE, Thomson Reuters Impact factor: 2.4, November 2023,**(Scopus, Web of Science indexed & Q2)**
- 26) Impact of entropy generation and temperature gradient heat source on coquette flow in a permeable magnetic field, Heat Transfer, John Wiley & Sons Inc., ESCI, Vol.53, 2024, ISSN: 2688-4534, Scopus I.F : 5.1 **(Scopus, Web of Science indexed & Q2)**
- 27) Impact of Heat Source on Williamson Nano Fluidflow past an exponentially stretched porous surface, Journal of Non Linear Analysis and Optimization, ISSN No: 1906-9685, Vol. 15, Issue 4, No. 1, April 2024. **(UGC CARE)**
- 28) Melting Flow Analyzation of Radiative Riga Plate Two-Phase Nano-Fluid Across Non-Flatness Plane with Chemical Reaction, Frontiers in Heat and Mass Transfer, ISSN: 2151-8629, Vol. 22, Issue 5, October 2024, Tech Science Press. **(Scopus, Web of Science indexed & Q3)**
- 29) Thermal and flow dynamics of Magnetohydrodynamic Burgers Fluidinduced by a stretching cylinder with internal Heat Generation and Absorption, International Journal of Thermo Fluids, ISSN: 2666-2027, Elsevier, November 2024, Impact Factor: 8.98 **(Scopus, Web of Science indexed & Q1)**

- 30) Theoretical Analysis of MHD Maxwell Two Phase Nano Flow Subject to Viscous Dissipation and Chemical Reaction: A Nonsimilar Approach, Case Studies in Thermal Engineering, <https://doi.org/10.1016/j.csite.2024.105688> ISSN: 2214-157X, Elsevier, Impact Factor: 6.4, December 2024 (**Scopus, Web of Science indexed & Q1**)
- 31) Execution of bio convective radiative dissipative non Newtonian Magnetohydrodynamic flow comprising stratification with BVP4C approach configured with vertical plane, Computer Modelling in Engineering & Sciences, ISSN: 1526-1506, Impact Factor: 2.2, 2024 (**Scopus, Web of Science indexed & Q2**)

RESEARCH PAPERS PRESENTED: (Last 5 Years)

1. Presented a research paper entitled “Unsteady MHD convective heat and mass transfer flow past an inclined moving surface with heat absorption” in the UGC Sponsored National Seminar on “**Recent Advances in Pure and Applied Mathematics**” held at PB Siddhartha college, Vijayawada during 9-10, September 2015.
2. Presented a research paper entitled “Hydromagnetic free convective flow past an inclined moving surface embedded in a porous medium in a slip flow regime” in the **3rd International conference on Applications of Fluid Dynamics (ICAFD 2016)** held at **IIT Dhanbad** during 19-21, Dec 2016 organized by IIT Dhanbad in association with Fluid Mechanics Group of Botswana.
3. Presented a research paper entitled “Aligned Magnetic field effect on unsteady MHD double diffusive free convection flow of Kuvshinski fluid past an inclined moving porous plate” in the **International Conference on Applications of Fluid Dynamics (ICAFD-2018)** organized by VIT University, Vellore in association with University of Botswana and SIAM, USA held at VIT Vellore, during 13-15, December 2018.
4. Presented a research paper entitled “Effects of Radiation and Radiation Absorption on Unsteady MHD flow past a Vertical Porous Flat Plate in a Rotating system with chemical Reaction in a Nano Fluid” in the National Conference **CMFDP- 2019** organized by **NIT Warangal** during 18-20, January 2019.
5. Presented a research paper entitled “Unsteady MHD free convection flow of Kuvshinski fluid past an inclined moving porous plate with chemical reaction” in the UGC Sponsored National seminar **RTMSA-2019** organized by **Acharya Nagarjuna University** during 24- 25, January 2019.

6. Presented a research paper entitled “ Soret and Chemical Reaction Effect on MHD Free Convective Flow Past an Inclined Surface” in a two day **‘National conference on Recent Advances in Mathematics and Mathematical Sciences’** held at St.Joseph’s College for Women, Vishakhapatnam, from 15th to 16th November, 2019.
7. Presented a research paper entitled “ Effects of Radiation on unsteady MHD Flow Past a vertical porous flat plate in a rotating chemical reaction in a Nano Fluid” in the **ICMS-2019** held at Smt. Gantela Sakuntalamma College, Jaggayyapet, from 11th to 13th November, 2019.
8. Presented a research paper entitled “Heat and Mass Transfer Effects on Linearly Accelerated Isothermal Inclined Plate” in the **86th Annual Conference of Indian Mathematical Society**, an International meet organized by the Department of Mathematics, VIT University, Vellore during December 17-20, 2020.
9. Presented a research paper entitled “Entropy generation and temperature gradient heat source impacts on Couette flow in an aligned magnetic field with permeable base” in the International conference on relevancy of Ancient Mathematics to the current digital trends in collaboration with **XXXI Annual Conference of APTSMS**, organized by National Sanskrit University, Tirupathi during 9-11, December 2022.
10. Presented a research paper entitled “MHD Free Convective Heat and Mass Transfer Flow Past in Inclined Plate With Heat Absorption” in the **National Seminar** on Recent Advances in Mathematical and Statistical Methods for Science and Technology, organized by Department of Mathematics and Humanities, RVR&JC College of Engineering, Guntur on 22nd December, 2023.
11. Presented a research paper entitled “Analysis of a Ferro Magnetic Nano Fluid Saturating a Porous Medium with Nields Boundary Conditions” in the **National Seminar** on Advances and Applications in Mathematical Sciences, organized by Department of Mathematics, Andhra Loyola College, on 4th and 5th March, 2024.

BOOKS AUTHORED:

1. One of the Authors of the book “ Analytic Number Theory and Graph Theory” published by the Centre for Distance Education, Acharya Nagarjuna University, 2005.
2. One of the authors of the Mathematical Monograph ‘Prime Fuzzy Submodules’, published by VDM Verlag Dr Muller, Germany, 2010.

MEMBERSHIP IN PROFESSIONAL BODIES:

1. Life member and Academic Secretary of “Association for the Improvement of Mathematics Education”, Vijayawada.
2. Life Member of “Ramanujan Academy”, Ramachandrapuram.
3. Life Member of “ Indian Mathematical Society”
4. Life Member of “AP & TS Society for Mathematics Teachers”, Hyd.
5. Member, BoS Mathematics(PG), CH.S.D.ST. Theresa College for Women, Eluru.
6. Member, PG BoS Mathematics, Applied Mathematics & Statistics, Krishna University.

ACADEMIC ACTIVITIES:

1. Reviewer, BMC Research Notes(Scopus Indexed Journal, A part of Springer Nature)
2. Reviewer, Journal of Applied Mathematics & Informatics, Korea(Scopus Indexed Journal)
3. Reviewer, Numerical Heat Transfer, Part A: Applications, UK(Scopus Indexed Journal)
4. Paper Setter, Manipal University, Manipal.
5. Paper Setter, Vignan University, Guntur.
6. Examiner, Acharya Nagarjuna University & Krishna University.
7. Examiner & Paper Setter, Andhra Loyola College, J.K.C College, A.N.R College.

SEMINARS/WORK SHOPS/CONFERENCES ATTENDED: (Last 5 Years)

1. Participated in the 2nd International Conference on Applications of Fluid Dynamics (ICAFD-2014) held at S.V.University, Tirupati during 21-23 July, 2014.
2. Participated in the XXIII Congress of APSMS and National conference on Mathematics held at Vignan University, Guntur during 12-14, December, 2014.
3. Participated in the UGC Sponsored Two Day National Seminar on Innovations in Higher Education held at P.B.Siddhartha College of Arts & Science, 7-8, Nov. 2014.
4. Participated in the UGC Sponsored Two Day National Seminar on “Recent Developments in Mathematics and its Applications” and 128th Birth celebrations of Sri Srinivasa Ramanujan held at Nagarjuna University during 22-23, Dec 2014.
5. Participated in National Conference on Recent Developments in Applications of Mathematics in Science Engineering [RDAMSE-2015] held at Annamacharya Institute of Technical and Science, Rajampet during 10-11, January, 2015.
6. Participated in the UGC Sponsored One Day National Seminar on “Advances in Mathematical Sciences” held on 28th, November 2015 at K.B.N. college, Vijayawada.
7. Participated in the UGC Sponsored National workshop on “Optimization Techniques

- with MATLAB” held on 31st, August 2015 at V.R.Siddhartha Engineering College.
8. Participated in the one day National Seminar on ‘Recent Advances in Algebra’ on 23rd October 2016, organized by SSN College in collaboration with Acharya Nagarjuna University, held at SSN College, Narasaraopet.
 9. Participated in the 29th Edition of BRIDGE 2017 - VIJAYAWADA (The Largest Industry-Institute Interaction Event of India), organized by ICT Academy held on 26th October 2017.
 10. Participated in the National Seminar on Mathematics on 12th November 2017, organized by AP & TS Mathematical Society in collaboration with Acharya Nagarjuna University.
 11. Participated in the Science Academy sponsored workshop on Fluid Mechanics organized by the Department of Mathematics & Statistics, K.B.N.College, Vijayawada during 4-5, October 2018.
 12. Participated in the two day workshop on ‘Research initiatives and proposal drafting in Mathematical Sciences’ sponsored by DST- SERB and organized by KLEF, Guntur during 24-25, May 2019.
 13. Participated in a short term training programme (STTP) on Statistics with R Programming sponsored by AICTE, New Delhi organized by Narasaraopeta Engineering college during 24-29, June 2019.
 14. Participated in a UGC Sponsored two day National workshop on “ Rings and Near Rings with Special Emphasis on Gamma Near-Ring Theory” held at Acharya Nagarjuna University, Guntur, during 29-30 November, 2019.
 15. Participated in a webinar on “How to Prepare Educational Video Lectures”organized by S.R. Government Polytechnic College, Sagar(M.P.) on 14.05.2020.
 16. Participated in a three day national webinar on “ Conquering less attended areas in NAAC &Outcome based Education” Shri Jagabamba vinkar Shikshan Sanstha , Achalpur’s Jagadamba Mahavidyalaya, Achalpur City, from 1-3rd June , 2020.
 17. Participated in the Five days online FDP on “ Online Teaching tools for Video Lecturing and Digital e-Learning” organized by IQAC, SIR C R Reddy College, Eluru from 19-23, May, 2020.
 18. Participated in the webinar on “ NAAC Accreditation Management System Demo” organized by inPods on 14th May, 2020.

19. Participated in a one week online FDP on “Un lockdown 3.0: A Period of Re Orienting the Teaching & Learning”, organized by Githam University, Bengaluru from 17-23, August 2020.
20. Participated in an online 4th National Teachers congress in December 2020, Pune.
21. Participated in a webinar on ‘Intellectual Property Rights’ held on 26th February 2021.
22. Participated in a Five day FDP on Technical Report writing Using Latex, organized by VIT-AP University during 5-9, April 2021.
23. Participated in a FDP on “Citation Styles and Reference Lists” organized by Siva Sivani Institute of Management, Hyd from 21-23, June 2021.
24. Participated in webinar on “Usage of Mathematical Tools in MATLAB”, Organized by Krishna University on 6th August 2021.
25. Participated in a 2nd One week FDP on Technical Report writing Using Latex, organized by VIT-AP University during 7-13, April 2022.
26. Participated as a guest of honour in the National Mathematics Day Celebrations organized by Department of Mathematics, Sri Aravinda Sathajayanthi Government Degree College, Narayanapuram, Eluru Dt, Andhra Pradesh on 21.12.2022.
27. Participated in the Online International Workshop on ‘Mathematical Modeling & CFD Simulations using Comsol Software’ from 01.08.2023 to 31. 10.2023. Prof.Suman Saha, Department of Mechanical Engineering, BUET, Bangladesh was the resource person.
28. Participated in the State level one day workshop for Universities and Colleges on India Rankings- NIRF 2024 on 30.11.2023 held at JKC College, Guntur and organized by APSCHE.
29. Participated in the National level one week online ‘FDP on OBE and Essential AI tools for teachers’ organized by IQAC, Rama Krishna Mission Vivekananda Centenary College, Kolkata in association with CCS University, Meerut held during 14-20, December 2023.

(J.L.RAMA PRASAD)