

Profile



Dr. D. Babu Reddy
Assistant Professor(C)
Department of Mathematics
JNTUA College of Engineering (Autonomous), Pulivendula
E-Mail ID: d.babureddy@gmail.com ,
d.babureddy.maths@jntua.ac.in
Mobile no: +91- 9502168920
Date of Birth: 27-03-1982

Academic Qualifications:

| Course | Name Of The Institution Studied | Name Of The University | Year Of Graduation | % Of Marks Obtained |
|-------------------------|---------------------------------|--|--------------------|---------------------|
| SSC | Govt. Junior College | Board of Secondary Education, Andhra Pradesh | 1997 | 75 |
| Intermediate | Govt. Junior College | Board of Intermediate, Andhra Pradesh | 1999 | 70 |
| B.Sc. Computer Science | JCNRM Degree College, Tadpatri | S.K.University, Anantapuramu | 2003 | 83 |
| M.Sc., Pure mathematics | SKUPG Center, Kurnool | S.K.University, Anantapuramu | 2006 | 67 |
| Ph.D. | JNT University, Anantapuramu | JNT University, Anantapuramu | 2018 | -- |

Professional Experience

| Name of the | Designation | Duration of employment | Nature of |
|-------------|-------------|------------------------|-----------|
|-------------|-------------|------------------------|-----------|

| employer/ organization | | From | To | duties |
|--|--------------------------|-------------------------------|----------------|---------------------|
| JNTUA College of Engineering, Pulivendula. | Assistant Professor (C) | August 01 st ,2017 | Till Date | Teaching & Research |
| JNTUA College of Engineering, Pulivendula. | Assistant Professor (C) | Sep 23rd, 2009 | June 06th,2014 | Teaching |
| Tanla Solutions Private Ltd | Junior Technical Trainee | Aug 11th, 2008 | Dec 10th, 2008 | Programming |

Teaching Experience: More than 10 years of teaching experience.

Subjects Handled:

1. Linear Algebra & Calculus
2. Differential Equations & Vector Calculus
3. Complex Variables & Transform Techniques
4. Numerical Methods, Probability & Statistics
5. Computational Methods
6. Fuzzy Set Theory & Applications.

Books published: 01

1. Published a book on, **MHD Boundary Layer Flow over a Plate/Sheet through a Porous medium**, for an international publisher, **LAP LAMBERT Academic Publishing**, 2018, **ISBN: 978-613-9-85600-8**.

Patents Published: 03

| S.No | patent registered (National / International) | Title of the Patent | Application Number | Date of Published |
|------|---|---|-----------------------|----------------------|
| 1 | National | A System and Method for Polarization- Maintaining Fibres of Twist Sensor with Different Cladding Diameters | 202141016617 | 23-04-2021 |
| 2 | National | A Numerical and Analytical Method for Solving Nonlinear Equations using Fixed Point Iteration | 202341029749 | 05-05-2023 |
| 3 | National | A Numerical method for providing integral transforms | 202341028134 | 26-05-2023 |

Number of Research publications:

International Journals : 06

International Conferences : 03

National Conferences : 05

FDP/ Training program : 11

NPTEL Courses : 04

International Journals

1. **D. Babu Reddy, G.S.S.Raju, "Radiation and Chemical Reaction Effects on Unsteady MHD Mixed Convection Flow over a vertical Porous Plate with Radiation Absorption", Global Journal of Pure and Applied Mathematics, Vol. 13(8) (2017), pp.4015-1034.**

2. **D. Babu Reddy**, G.S.S.Raju, “**Soret and chemical reaction effects on Unsteady MHD flow of viscoelastic micropolar fluid through a porous medium with thermal radiation and heat source**” IOSR Journal Mathematics, Vol.13(2)(2017), PP 70-84.
3. **D. Babu Reddy** and G.S.S.Raju, “**Hall current effects on MHD free convective heat and mass transfer flow past an oscillating vertical porous plate in the presence of Radiation, thermal and mass diffusion with chemical reaction**”, International Journal of Mathematics and Computer Applications Research (IJMCAR), Vol. 7(2)(2017), PP. 1-22.
4. **D. B. Reddy**, K. S. Reddy, B. Triveni, and G. S. S. Raju, “**Variable mass diffusion and temperature dependent heat source/sink effects on MHD Casson fluid through a stretching sheet**”, AIP Conf. Proc. 2246, 020102-1–020102-8; <https://doi.org/10.1063/5.0014637>
5. B. Triveni, K. Sidda Reddy, **D. Babu Reddy**, and G. S. S. Raju, “**Heat source thermal diffusion and Hall current effects on unsteady MHD free convection flow of radiating and chemically reactive fluid past a moving vertical plate in a rotating system**”, AIP Conf. Proc. 2246, 020110-1–020110-7; <https://doi.org/10.1063/5.0014660>
6. K. Sidda Reddy, **D. Babu Reddy**, B. Triveni, G. S. S. Raju, and M. C. Raju, “**Analysis of heat and mass transfer flow of nano fluid in conducting field through a vertical plate in porous medium**”, AIP Conf. Proc. 2246, 020109-1–020109-7; <https://doi.org/10.1063/5.0014707>

National & International Conferences:

1. Presented a paper entitled as “**Cross Diffusion and Hall Current effects on MHD Newtonian Fluid Flow past an Inclined Plate: A Numerical approach**” in the **National Conference on Mathematical Advances in Science and Industrial Technology (NCMASIT-2021)**, during 26 - 27, March 2021, organized by **Department of Mathematics, Acharya Nagarjuna University, Ongole Campus, Ongole.**

2. Presented a paper entitled as **“Entropy generation in MHD flow of Casson fluid over a curved Stretching Sheet”** in the XXIX Congress of **APTSMS & National Conference on Mathematics and its Applications (NCMA-2020)**, during December 3rd - 5th, 2020 organized by Department of Mathematics, Mahatma Gandhi University, Nalgonda.
3. Presented a paper entitled as **“Unsteady MHD flow and Heat Transfer of Ethylene Glycol based Couple stress Hybrid Nanofluid through a dilating channel”** in the **International Conference on Advances in Science, Engineering & Mathematics(ICASEM2020)**, held on 7th – 9th, August 2020 organized by Department of Mathematics, AITS, Rajampet, Andhra Pradesh.
4. Presented a paper entitled as **“Chemical Reaction effects on MHD Casson Nano fluid combined with Joule heating and Convective Boundary”** in the **National Seminar on Application Oriented Mathematical Sciences**, held on 2nd March,2020, organized by Department of Mathematics, Yogi Vemana University, Kadapa, Andhra Pradesh.
5. Presented a paper entitled as **“ Cross diffusion and Multi-Slip effects on MHD Casson fluid flow in porous media with thermal radiation and chemical reaction”** in the **National Conference on Recent trends in Pure and Applied Mathematics**, during December 6 - 8, 2019, organized by Department of Mathematics, Rashtriya Sanskrit Vidya Peetha,Tirupathi.
6. Presented a paper entitled as **“Variable Mass Diffusion and Temperature Dependent Heat Source/Sink Effects on MHD Casson Fluid through a Stretching Sheet”** in the **International Conference on Mathematical Sciences and Applications(ICMSA-2019)**, during 9th – 11th , August 2019, organized by Department of Mathematics, GITAM University, Hyderabad.
7. Presented a paper entitled as **“Cross Diffusion and Hall Current effects on MHD Newtonian Fluid Flow past an Inclined Plate: A Numerical approach”** in the **National Conference on Mathematics and its Applications**, during March 28 - 29, 2019, organized by Department of Mathematics, Sri Venkateswara University, Tirupathi.
8. Presented a paper entitled as **“Influence of Viscous Dissipation and Joule Heating effects on MHD Casson Fluid Flow with Newtonian Heating”** in the **National**

Conference on Advances in Computational Fluid Dynamics, during April 13 - 14, 2019, organized by Department of Mathematics, Acharya Nagarjuna University, Ongole Campus, Ongole.

FDP/Workshops/STTP Attended:

1. Participated in Two week national level Faculty Development Program on “**Advanced Concepts for Developing Moocs**” organized by, teaching learning center Ramanujan College, University of Delhi. Sponsored by Ministry of human resource development pandit madan mohan malaviya national mission on teachers and teaching, from July 02 - July 17, 2020.
2. Participated in 4-Week Induction/Orientation Programme for “**Faculty in Universities/Colleges/Institutes of Higher Education**” organized by, teaching learning center Ramanujan College, University of Delhi. Sponsored by Ministry of human resource development pandit madan mohan malaviya national mission on teachers and teaching, from June 04 - July 01, 2020.
3. Participated in Two week national level Faculty Development Program on “**Managing online classes and Co-Creating Moocs 2.0**” organized by, teaching learning center Ramanujan College, University of Delhi. Sponsored by Ministry of human resource development pandit madan mohan malaviya national mission on teachers and teaching. From May 18 - June 03, 2020.
4. Participated in the National Workshop on “**Current Trends and Future Technologies in Computing**” Conducted by Department of Information Technology, University of Mumbai from 8th to 13th May 2020.
5. Participated in the National Workshop on “**Recent Trends in Fluid Dynamics and Numerical Techniques**” Conducted by Department of Mathematics, JNTUA College of Engineering, Pulivendula from 21st & 22nd, October 2016.
6. Participated in the National Workshop on “**Research Methodology in Science and Technology**” Conducted by TEQIP-II, JNTUA College of Engineering, Pulivendula from 17th & 18th, October 2016.
7. Participated in the 3rd National Workshop on “**Research Methodology in Fluid Mechanics**” Conducted by Department of Mechanical Engineering, Amrita University, Kollam, Kerala from July 14th to 16th, July 2016.
8. Participated in the National Workshop on “**Applications of Computational Techniques in Engineering (ACTE-2015)**” Conducted by Department of Chemical

Engineering, RVR&JC College of Engineering(Autonomous),Guntur from 06th to 07th , November , 2015.

9. Participated in the Short term training Programme on “**Symbolic Computing and Numerical Programming using Mathematica/ Matlab**” organized by Dept. of Mathematics, NIT, Warangal from 10th to 12th , July, 2015.
10. Participated in the National Workshop on “**Advanced Finite Element Analysis** “, organized by IIT Madras, Chennai from 22nd to 24th, December, 2013.
11. Participated in the National Workshop on “**Mathematical and Computational methods in fluid dynamics (NWMCMFD’13)**”, Conducted by Department of Mathematics, JNTUACEA (Autonomous), Anantapuramu from 10th & 11th, January, 2013.

[NPTEL Courses:](#)

1. **Numerical Methods: 8-week Course [Aug-Sep 2018]**
Successfully Completed with a consolidated Score of 72% . **Grade: Elite**
2. **Matrix Analysis with Applications: 8-week Course [Aug-Sep 2018]**
Successfully Completed with a consolidated Score of 76% . **Grade: Elite**
3. **Transform Calculus and its applications in Differential Equations:**
AICTE-FDP Programme: **12-week Course [Jan-April 2019]**
Successfully Completed with a consolidated Score of 85%. **Grade: Elite + Silver**
4. **A short lecture series on contour integration in the complex plane (AICTE-FDP):**
AICTE-FDP Programme: **4-week Course [Jul-Aug 2019]**
Successfully Completed with a consolidated Score of 76% . **Grade: Elite + Silver**